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8<sup>th</sup> February 2022

**IrBEA Response to Introduction of a Renewable Heat Obligation Consultation**

Dear Sir / Madam,

Thank you for the opportunity to contribute to this consultation on behalf of our members. IrBEA is the representative organisation for the bioenergy sector on the island of Ireland. Our remit covers the bioenergy sectors of Biomass, Biogas, Biofuels, Biochar, Energy Crops and Wood fuels. We are working with members, which includes farmers and foresters, to grow develop and mobilise all aspects the bioenergy sector.

**Introduction**

The Bioenergy sector has a significant role to play in addressing some of the key challenges and opportunities that many sectors of our economy face. Emissions reduction can be achieved through development and mobilisation of purposely grown energy crops, biomass, agricultural and food by-products, forestry by-products and sawmill by-products. Ireland has significant resources of materials to use. Additional benefits for wider ecosystems include improvement in water quality through the use of biochar, displacing chemical fertiliser with digestate from biogas and provision of new micro environments.

The largest portion of available material will come from the forestry sector. The state and private land owners have invested heavily in afforestation since 1990, this investment is now delivering considerable quantities of product to the economy. By-product materials from wood pulp, thinnings and sawmill residues are an integral part of sustainable forest management. Valorisation of this

material through its use for the provision of renewable energy helps to make forestry a viable enterprise and encourages additional afforestation.

The climate challenge is an existential threat to our society and is officially designated as the Climate Emergency. We must consider all possible methods to tackle this challenge.

In terms of energy provision and the displacement of fossil fuels all technology options available to provide heat, electricity and transport fuels must be considered. We are concerned that government policy appears to be over reliant on the electrification as the technology available to provide for all our heating and transport needs. This policy leaves Ireland particularly vulnerable, and is essentially “placing all our eggs in one basket”.

There are many mainstream technologies across EU that Ireland has yet to adopt at a level comparable to our EU counterparts. Ireland has the lowest penetration of renewable heat out of the 27 member states, and has no recognisable supports for many available technologies such as biomethane, residential biomass heating, biomethane as a transport fuel, and the deployment of energy crops. Bioenergy can be used as a source of dispatchable electricity to supplement intermittent generation. We are also missing the potential to capitalise on biofuels to continue decarbonising our transport fleet. Bioenergy Carbon Capture and Storage through many technology options offers considerable opportunity for Ireland given our world renowned growing conditions.

The challenge ahead is considerable, and we must embrace all viable technologies available to meet the challenge. We call for recognition of the benefits that bioenergy can bring, and of the significant carbon reductions that can be achieved through the use of biomass fuels for heating, biofuels and biogas for transport.

Biomass for heating can be deployed at all temperatures and scales and is fully dispatchable, i.e. not an intermittent source of renewable energy. Solid biomass provides a much cheaper method to decarbonise heating our building stock and industrial processes. It is particularly suited to buildings that cannot be readily retrofitted with insulation for architectural, practical or economic reasons.

The International Energy Agency report, “Net Zero by 2050, a roadmap for the global energy sector” states *“Modern and sustainable forms of bioenergy play an important role in our new special report on how the global energy sector can reach net-zero emissions by 2050”*. This report clearly states that bioenergy must be fully mobilised, and is clearly recognised as a central pillar of GHG reduction policy.

<https://www.iea.org/articles/what-does-net-zero-emissions-by-2050-mean-for-bioenergy-and-land-use>

Biomass has the potential to greatly reduce our CO<sup>2</sup> emissions. The Renewable Energy Ireland 40By30 Report clearly sets out the resources and technologies available for Ireland to reduce emissions from

heating by 40% by 2030. This report strongly emphasises the need for a range of available technologies including biomass for the conversion of domestic, commercial and industrial heating.

<https://renewableenergyireland.ie/wp-content/uploads/2021/05/Renewable-Energy-Ireland-Renewable-Heat-Plan-Final.pdf>

The report in general is largely ignoring the significant role bioenergy plays in the world and in Europe. Bioenergy supplies 67% of global renewable energy and over 50% of European renewable energy. Ireland has substantial resources to grow and supply biomass to meet energy needs that are dispatchable. Not considered at all in Figure 3-7.

Welcome the potential to consider Bioenergy Carbon Capture and Storage (BECCS) on page 84, we note and agree that many carbon dioxide removal technologies are not yet developed, the potential for BECCS to develop a meaningful scale within the decade should not be underestimated.

#### Solid Fuels

The use of solid fuels for heating is discussed on page 12 in the budget. We need to clearly delineate between renewable and non renewable fuels in terms of the carbon budget. Clearly, we all agree that fossil fuels such as coal and peat need to be removed from Irelands energy mix. Doing this will have a positive impact on Irelands net carbon emissions.

We note and agree that air quality is a critical issue for society. This is more of an issue in urban areas than in rural areas. We welcome the introduction of greater regulation of solid fuels something we have been calling for over several years. Solid biomass is abundant in Ireland and fits into our long history of using solid fuels for heating. Combustion technology is advancing to the point that appliances are approaching zero PM emissions. Improvements are already underway through fuel standards and the implementation of the EcoDesign criteria on 1<sup>st</sup> January this year. These measures, dried wood fuels in correctly designed appliances, will immediately reduce any air quality impact wood fuels may have. Research carried out by UCD clearly shows that moving from peat and coal to wood fuels will automatically reduce PM emissions. Research worldwide shows that reducing the moisture content of wood fuels dramatically reduces emissions of particulates. The proposed Solid Fuels legislation restricting the sale of firewood with moisture content above 25% from September 2022, and 20% from 2024 is very welcome.

We are concerned that the narrative appears to consider that the only option is to phase out all solid fuels including wood. Ireland appears to be alone in this policy approach. We are witnessing substantial investments in biomass heating across the EU. By way of example, France has installed over 600,000 biomass appliances in the past 5 years to assist in meeting its climate obligations. The narrative of removing wood fuels is flawed.

We disagree with the policy approach to discourage home owners from using biomass based solid fuels, particularly where their only alternative is fossil fuels such as gas, kerosene, peat or coal.

The challenge to retrofit 500,000 houses in 8 years is daunting, and invariable not achievable when considered alongside Irelands housing crisis. Further is must be noted that this policy is tied to an equally ambitious assumption that we can decarbonise 80% of all electricity in order to achieve the carbon reductions sought. The consideration of alternative decarbonisation technologies such as biomass and district heating must be considered as mainstream policies to achieve our commitments.

### Transport

While we are very supportive of the policy to electrify as many vehicles as possible it must be considered that the target of 1.0-1.5m EV's to be on our roads in eight years' time is very difficult to see being achieved. Biofuels have over the past 10 years provided 98% of Irelands renewable transport, and have the potential to increase the renewable transport share substantially over the coming 8 year period.

The recently published 'Irish Bioenergy Association Transport Report: A Pathway to Halving Emissions report clearly outlines the policy measures and interventions that are required to achieve the Programme for Government ambition of 51% emission reduction by 2030.

<https://www.irbea.org/wp-content/uploads/2021/12/Irish-Bioenergy-Association-UCC-MaREI-Renewables-In-Transport-Report-Final.pdf>

This report includes the following findings:

1. Emissions reductions arising from an ambitious and increased BOS rate provides the Government with an immediate win in terms of emissions reduction from transport. As emissions are cumulative, earlier action through the implementation of an increased ambition in the BOS is consistent with carbon budgeting for the transport sector. Many of the other current proposed policy measures are more medium to long term implementation items (EV targets).
2. There are no technical barrier to increases in blending rates to E10 and higher and B12 up to B20 in line with an increasing BOS rate. Physical fuels blend rates could be increased to 10% and higher in petrol (E85 is widely used in France and Sweden). 12% in biodiesel and Up to 20% biodiesel blending could be achieved with a specific focus on captive heavy goods and bus fleets.



The Irish Bioenergy Association is committed to assisting policy makers to understand all of the technical options available to stay within our carbon budget and remain available to provide whatever technical information is required.

On Behalf of the Irish Bioenergy Association

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