

**Statement from Dr Ger Devlin, (IrBEA CEO) to the Joint Oireachtas Committee on Communications, Climate Action and Environment – 27th February 2018.
RE – Ireland’s Targets Under the 2020 Climate and Energy Package.**

Dear Cathaoirleach

To begin with, allow me thank the committee and Chair for allowing IrBEA the opportunity to present our key issues today. Joining me today are Tom Bruton and James Cogan.

Executive Summary

Bioenergy is the largest source of renewable energy in the EU today, providing heat and electricity, as well as transport fuels. The use of biomass has continued to grow in recent years and can play a key role in decarbonising our economy. Bioenergy by its nature is unique in that it can and does contribute to all **RES-H, RES-E and RES-T** targets.

There are substantial economic benefits that can accrue by harnessing the potential of bioenergy as part of the 2020 renewable energy targets. According to DKM economic consultants commissioned by IrBEA, the benefits would be:

- Over 3,600 new permanent jobs in the bioenergy sector.
- 1.5 billion direct investment in the sector.
- 8,300 work years during construction and installation.
- Sustaining family farm incomes in Irish agriculture.
- Reducing Ireland’s energy import bill by 7.5%.
- Providing a secure and competitive energy source for Irish homes and business.

The Primary Barriers to Fulfilling Bioenergy’s Full Potential are -

- Slow implementation of the Support Scheme for Renewable Heat – currently 6.6% with target of 12%. Taken 10 years to reach this – less than 3 years left.
- Not enough effort directed to developing bioenergy as a source of combined heat and power and district heating.
- Slow implementation of Renewable Electricity Support Scheme – currently 22.7% with target of 40%. Bioenergy has been factored in poorly in previous support schemes.
- Lack of effort directed towards mobilizing the additional biomass resources available within Ireland.
- Slow increase in the biofuels blending obligation rate to decarbonize our transport.

The Key Recommendations of a Successful SSRH Scheme need to be -

- To be open for applications mid-2018.
- Improved tariff for successful uptake post 2018.
- Sustainability criteria in line with RED II.
- Robust eligibility criteria.
- Simple application and approval process.
- Positive uptake will only happen with correct tariffs.
- Low ongoing administration burden (on applicants and administrators)
- Allow useful heat to cover the drying of wood to increase energy tonnes displaced which means less biomass is ultimately needed due to lower moisture content from drying.

Key Recommendations for a Successful BOS need to be –

- Ireland has only reached half the target for renewables in transport, with less than three years to go – currently 5.2% with target of 10%.
- This is due to low deployment rates of biofuels in the main fleet and total exclusion in some parts of the fleet – 40% of engine fuel is currently not included in BOS.
- Fuels used in aviation, agriculture, marine and construction sectors are excluded from consideration – this needs to change in new BOS.
- According to both the International Energy Agency and the European Commission biofuels are going to have to grow by a factor of ten by 2050 if the planet is to stay within the 2 degree climate change scenario.
- Biofuels made from domestic EU crops and from properly certified wastes and residues are the single most effective climate measure in transport in the near to medium term and Ireland can and should make more ambitious use of them.
- It is essential that 12% biofuels inclusion volume rate is achieved.
- As we are tied to the UK for biofuels in petrol and diesel we should be petitioning the UK government to increase its blend rates so that we can increase ours too and we should be working at an EU level to maintain consistent and ever more ambitious legislation and to assure climate harming biofuels such as palm oil and fraudulent waste oils are eliminated from the system.

Key Recommendations for a Successful RESS need to be –

- RESS needs to be implemented within a 2019 timeframe.
- Technology specific auctions are needed for successful uptake of bioenergy – all renewables can play a key role here.
- 40% baseline currently lacks ambition and 55% RESS penetration is possible whilst delivering cheaper electricity to the consumer.

1. Introduction

The Government is in a race against time to avoid fines from the EU for failing to hit 2020 renewable energy targets. 2018 is set to be a defining year for the country's energy sector and the clock is ticking faster than perhaps the Government would like. If Ireland fails to meet an overall binding target of 16% renewables, made up of 40% in electricity, 12% in heat and 10% in transport a penalty of up to €120m will be imposed by the European Commission for every 1% the State falls below this target. Renewables are currently at 8.6% so there is quite a path to travel. Just 22.7% of the 40% electricity target has been reached, with 6.6% for heat and 5.2% for transport. And it has taken ten years to achieve these modest levels.

By 2030 the target may jump to 35% renewables with even greater fines being proposed.

The barriers to reaching the bioenergy aspect of the target revolve around:

- Slow implementation of the Support Scheme for Renewable Heat (SSRH) – state aid approval too slow.
- Slow implementation of the Renewable Electricity Support Scheme (RESS).
- Slow increase in the biofuels blending obligation (BOS).

In addition, the legislative framework may be very difficult to work with over the coming years as the EU rules change erratically in 2021.

2. Key Concerns with Support Scheme for Renewable Heat (SSRH)

The Support Scheme for Renewable Heat (SSRH) was first officially conceived as part of the Bioenergy strategy consultation in May 2013, and formally announced in the October 2014 Draft Bioenergy Plan. But it has yet to be comprehensively implemented.

Instead there has been a significant negative impact of carrying on with business-as-usual over recent years. Approximately 550 tonnes of oil equivalent of additional fossil fuels are burnt each day as the policy is still being developed. Since 2014 c. 800,000 tonnes have been avoidably consumed.

There is also a negative social and economic impact associated with business-as-usual. There are many bioenergy businesses that were founded on the basis of government initiatives but which have ceased to exist due to policy stagnation since 2008. Many skilled people have applied themselves to other technologies or other jurisdictions to make a living.

Certainly the ambition to have a scheme open to applicants in 2018 is welcome, but based on past record, a visible and credible change in gear is required to have a realistic chance of achieving it.

Moving Beyond 2020 and EU targets - The primary motive behind the proposal to introduce an SSRH is to meet Ireland's 2020 Renewable Energy targets, as per binding EU agreements for a 16% RES by 2020.

A very large effort is being invested in developing a scheme, which is targeted at a very short term 2020 target. The policy needs to cater for our climate change policies and energy ambitions over a longer horizon.

EU policies are useful to support the development of national legislation, but we should not need to be continually nudged along by EU targets and the threat of sanctions. This is not the best approach to policy-making in a post-brexite world – there is a need for a national vision, embraced by our citizens and our public representatives. Things should be done because of the threats posed by climate change, rather than undertaking them because we signed up to an EU target.

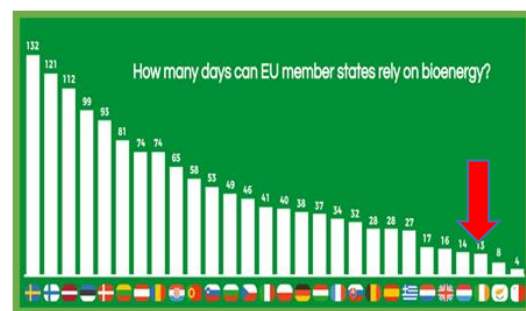
Bioenergy is the largest source of renewable energy today, providing heat and electricity, as well as transport fuels. The use of biomass power has continued to grow in recent years and can play a key role in decarbonising our economy. Biomass for heat has grown more slowly and with limited policy support but with the SSRH launch this will start to change. Liquid biofuels in transport is also a key area for 2020 targets. **The International Energy Agency estimates that by 2050 biofuels in transport need to grow by a factor of ten if the world is to stay inside the two degree climate change scenario. They forecast that biofuels will be the largest form of transport energy by then, more so even than electricity.**

The SSRH, now that it has been announced in late 2017, will support new businesses and jobs, as well as helping meet EU targets for 2020. There is still uncertainty, however, as EU state aid approval is still required.

The tiered rates in the scheme are generally positive but they do not favour the larger type installations, offering a subsidy of only 0.5 cents per kiloWattHour. These installations offer the biggest opportunity to close the gap in the renewable heat target. It is perhaps disappointing not see any support for biomethane gas grid injection from anaerobic digestion in this phase as this is seen as a key advanced transport biofuel to decarbonize the heavy goods vehicles.

The Government is in a race against time to avoid potential fines from the EU for failing to hit renewables targets. 2018 looks set to be a defining year for the country's energy sector and the clock is ticking faster than perhaps the Government would like. If Ireland fails to meet an overall binding target of generating 16% of renewables composed of electricity (40%), heat (12%) and transport (10%) in less than three years, a penalty of up to €120m will be imposed by the European Commission for every 1% the State falls below this target. It is currently set at 8.6% so there is quite a path to travel. By 2030 the target may jump to 35% renewables with even greater fines being proposed.

Pressure is mounting to implement policies to help avoid or reduce the potential bill facing Irish taxpayers. Even in an absolute best-case scenario, experts predict the State will fall short by 3% which will still lead to a significant bill. Surely these potential fines would be better spent implementing and approving budgets for new policies such as the SSRH and new support scheme for renewable electricity (RESS).



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The European Commission has highlighted the country's unimpressive status by ranking Ireland 23rd out of 28 member states for renewable energy. This is testified by how many days Ireland can run on bioenergy which is currently only 13 while Sweden can last 132 days and Finland 121 days. **The Taoiseach referred to Ireland as "laggards on climate change" in his address to the EU parliament.**

The National Mitigation Plan suggests bioenergy will be the dominant energy source by 2050. However, policy uncertainties – mostly related to the debate on appropriate sustainability criteria under RED II – plus other structural challenges have the potential to constrain the expansion of bioenergy, not just in Ireland but at EU level too. Therefore, it is imperative to successfully set out a roadmap as to how Ireland will meet its binding energy reduction objectives beyond 2020. This starts with a successfully developed SSRH and followed by improved Biofuels Obligation Scheme and then Renewable Electricity Support Scheme (RESS).

The Key Recommendations of a Successful SSRH Scheme need to be -

- To be open for applications mid-2018.
- Improved tariff for successful uptake post 2018.
- Sustainability criteria in line with RED II.
- Robust eligibility criteria.
- Simple application and approval process.
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3. Biofuels Obligation Scheme

IrBEA also represents the biofuels sector in Ireland. In transport, meeting Ireland's targets under the 2020 Climate & Energy Package will be extremely difficult, but with liquid biofuels, not impossible.

Transport is Ireland's largest energy-consuming sector with a share of 42% in 2016. Transport energy use is increasing 3%-4% per year and it is 97.5% derived from fossil oil. There are 2.7 million vehicles on the road of which less than 1% are electric or even partially electric. The combustion engine fleet size is growing much quicker than electric or other modes can catch up and this trend will continue for some years. Worldwide, peak oil on the road will not be reached before 2030 while electric vehicles won't reach parity with combustion engines until 2050 or thereabouts.

Ireland's targets under the 2020 Climate & Energy Package include achieving a 10% share of renewable energy in the transport sector. As of 2016 we had achieved around 5.2% and this was attributable almost entirely to biofuels. Biofuels work in today's cars today and without a government push for biofuels it will be impossible for Ireland to reach the 10% target or anywhere near it.

Aggressive decarbonisation of the transport sector is necessary through a combination of increased use of sustainable biofuels (including advanced liquid and gaseous) and electrification of transport.

It is important to remember that:

- After meeting 2020 targets, 90% of road transport fuel would still be fossil fuel.
- Approximately 40% of engine fuel used in Ireland is not subject to the Biofuels Obligation, and is not considered within the RES-T target. Fuels used in aviation, agriculture, marine and construction sectors are excluded from consideration.
- Double counting as a result of biofuel made from waste streams has also meant that a large proportion of the biofuel reported is notional.

4. Public Awareness

There is a need for greater awareness by consumer and industry alike of the impact of increasing blending levels. IrBEA views this as a positive development, as consumers are currently unaware that they are currently driving on biofuel blends. Overall energy policy is trying to encourage the concept of “energy citizens” and awareness is a key part of this.

Concerns over cost-impact are a function of currently low oil prices and low carbon taxation. If oil prices rise to a level which makes biofuels commercially viable or if carbon emissions are progressively taxed, then there is no net cost impact. Progressive carbon taxation is an effective tool in incentivising investment in renewable energy, subject to it being part of an All Island policy. Revenue from carbon taxation should be allocated directly for decarbonisation measures and not treated as a general tax. Greater awareness around carbon taxation would also send a positive behavioural signal to consumers.

The framing and implementation of biofuels policy over the last decade has not supported Irish biofuel producers. This has occurred despite a growing domestic market for biofuels mandated under the BOS. One of the main reasons has been a lack of coordination and consultation with the industry on appropriate policy implementation.

The potential for biomethane as an advanced transport fuel remains largely untapped, and not considered adequately in DCCAE’s energy policies to-date. Development of biomethane particularly for captive fleet applications could double the existing level of biofuel use based solely around using low-cost waste feedstocks and replacing heavy goods vehicles with a clean zero emission fuel.

There is no single obstacle to using more biofuels and reaching the target. The current fleet of vehicles are overwhelmingly compatible and biofuels are available in sufficient volumes and at a reasonable cost. The EU legislation is generous too in that it allows some forms of biofuels, such as biodiesel derived from used cooking oil and tallow, to be double counted, **meaning fuel distributors can use one litre but declare two.**

In order to assure biofuels are used the Irish government sets a biofuels blending obligation, or percentage volume that fuel distributors must include in petrol and diesel. In January the

percentage went from 6% to 8% and the government is now planning to up that to 12% by 2020. Fuel distributors then decide how to meet the obligation and can do so by using higher biofuels levels in one type of fuel and lower levels in another. Clearly they seek to achieve 7% levels of cooking oil and tallow based biodiesel – 7% being the level allowed by fuels regulation - as this can be double counted as 14%, and, when they can get it, they use a form of biofuel called HVO which can be mixed at any level in diesel without compromising the terms of the fuel regulation.

By far the biggest contributors to the progress Europe has made in lowering carbon emissions are conventional biofuels made from European grain, seed and beet crops. They are safe, effective, economical and come with no adverse side effects. These also bring great economic advantages by way of

- **7 billion euro of demand for our farmers.**
- **15 million tonnes of GMO-free animal feed.**
- **220,000 rural jobs.**

Europe is a grain, seed and beet superpower and easily supplies the crops. Ireland needs that farm demand, and it needs the GMO-free feed and the rural jobs.

Thankfully Ireland does not use palm oil derived diesel, which tragically is allowed under the Directive and is used widely in other EU countries. Palm oil diesel results in large scale loss of forest and peatland, being considerably more damaging than the fossil oil it replaces. It is palm oil diesel, and only palm oil diesel, that is behind the ILUC scare, or the unwanted side effect known as “Indirect Land Use Change”.

It is essential that the 12% biofuels inclusion volume rate is achieved at the earliest possible date, given that it only applies to a subset of overall oil use and this is only a step towards the longer-term decarbonisation challenge.

Petrol accounts for thirty percent of fuel use in Ireland and currently it contains just 5% biofuel by volume. A shift to 10%, or E10 as it is known, is likely and to be welcomed. The key barrier to E10 introduction today is oil company resistance arising from the fact that the UK also uses E5 currently, the UK supplies about 65% of Ireland’s petrol and without a simultaneous UK-Ireland transition to E10 the UK refineries are reluctant to invest in refinery facilities dedicated to Ireland. The other 35% of Ireland’s petrol comes from Cork and they will make the switch when the UK does. The UK may change to E10 this year in which case Ireland will follow automatically. In the meantime the Irish government should petition the UK government to accelerate the transition.

Engine compatibility with E10 petrol is not a barrier. 40% of Ireland’s vehicles, or 1.1 million, are petrol fuelled. By 2020 more than 99% of petrol vehicles will be suitable for E10 without compatibility concerns while a large portion of the remaining 1% of mostly older and vintage vehicles will most probably be unaffected also. E10 petrol is made by blending ethanol - which is pure alcohol - in the fuel. Since the introduction of fuel injection systems in all car makes in 1986 ethanol brings only benefits to drivers, by dramatically lowering the pollutants emitted in the exhaust and by enabling engines run leaner and smoother. Ethanol is not just a low carbon biofuel, it is a high quality fuel additive, allowing oil refineries dispense with expensive chemical additives.

5. Continuity with 2030 Climate & Energy Package

Today's policies and tomorrow's should allow for smooth and ever increasing ambition in climate action. Unfortunately much of the progress made in this decade may largely be undone the moment the current legislation expires on December 31st 2020.

The European Commission, Parliament and Council are currently seeking a compromise text for the new Renewable Energy Directive to take us to 2030. The Council proposal carries most weight and it includes, at first glance, an impressive target of 14% for renewable energy in transport. But closer inspection the proposed obligation is really only 3.5% (down from the current 10%) because half of the 14% is optional and the other half is "double counted". This 3.5% will be revised down even further at some stage as it is already apparent that the "advanced" biofuels which are a key component of the obligation are already acknowledged to not be viable at the volumes required. The Irish government, instead of championing greater climate progress as well as greater economic well-being for Europe's farmers, is supporting this hollowed out Council proposal for 2030.

6. Electrics are coming but not as quick as one might imagine

We recognise and embrace the excitement around electric vehicles and the recent statements in government publications about a ban on sales of combustion engines from 2030. They are very encouraging. But please note that there is a dis-connect between the size and speed of the electric car revolution and the reality on the roads. Ten years ago conventional wisdom had it that by 2018 there would be 250,000 electric vehicles on the roads but there are only 25,000. Growth alone in annual sales of combustion engines (not even total sales) in Ireland last year was bigger than the total cumulative sales of all electric vehicles ever. For some years to come - in the absence of very dramatic government intervention - the number of combustion engines will continue to grow quicker than electrics can catch up. Peak oil use on Irish roads will come in ten or twenty years from now and by the time electrics and combustion engines reach parity - sometime around 2045 maybe - the fleet will have doubled in size.

In the absence of political or popular interest and understanding of the phenomena Ireland is steering a path of least resistance in climate policy for transport. It is surely time for leadership and action. If Ireland is serious about climate progress in transport in the near future then safe effective economical crop-biofuels are an essential interim solution.

A good step towards real and growing progress would be for the government to make that "optional" 7% of the Council proposal an obligation in Ireland. This would simply mean preserving what has already been achieved by Ireland in the lead up to 2020 (reaching 10% renewables in transport, largely by way of crop-biofuels) and not letting the progress lapse.

7. Renewable Electricity Support Scheme (RESS)

a. Key Recommendations for RESS for Bioenergy

- The prospect of many years uncertainty around the eventual participation of bioenergy in a RESS market sends a very negative signal to existing and potential market actors. Neither diversity of market participants nor technology type has been foreseen under the suggested approach.
- The overall recommendation favours a technology-neutral auction, perhaps followed some time later by a more technology-specific approach. Most bioenergy projects will be excluded under any technology-neutral approach. IrBEA is asking for a commitment to a **bioenergy-specific pot in the first auction round and at least every two years (preferable 1 year) thereafter**. There is sufficient demand to ensure a competitive technology-specific auction for 50 MW of bioenergy projects every two years. This is ~372 GWh in volume terms.
- The overall ambition is low for development of RESS by 2030. To simply maintain a 40% RESS penetration level does not set the economy on a path to further decarbonisation, but simply maintains the status-quo on energy security and climate change mitigation and is inconsistent with other strategic planning and climate action policies. IrBEA is confident that there is sufficient project pipeline and demand to support 250 MW of bioenergy projects over the coming decade, and this would actually contribute an additional ~1,860 GWh towards the 2030 RESS target. This supports our strong view supported by the majority of stakeholders across the energy industry that the 40% RESS baseline target lacks ambition and that a much deeper level of **RESS penetration of 55% or greater can be achieved**.
- The focus on least-cost scenarios is excessive. It is accepted that cost controls and competitiveness are critical in the design of any supports. However, if short-term cost to electricity consumers becomes the over-riding factor, then parallel policy aims are ignored. The many socio-economic benefits of bioenergy (and renewable energy generally) have not been factored into any analysis.
- The necessary interaction between RESS and SSRH has not been addressed. There is a recommendation not to layer supports, and avoid parallel participation. The reality is that many bioenergy projects produce heat, power, transport fuels and perhaps other bio-based products simultaneously. Any challenges or complexity around integrating SSRH and RESS can and should be addressed as a matter of urgency. Bioenergy CHP has an important role in delivering RES-H and delivering on GHG reduction targets at non-ETS sites.
- The shared community ownership proposals are tailored towards utility-scale standalone generation sites. The measures are not appropriate for many bioenergy projects or auto-production sites.
- The cost modelling carried out around bioenergy is not reflective of the market and is overestimated to the point that the natural conclusion may be to **ignore potential RESS from bioenergy**. IrBEA is recommending a **maximum strike price of €150/MWh for a bioenergy-specific pot**, in order to cap the potential cost impact on an RESS and allow bioenergy to participate in auctions. This would also ensure that only the more cost-effective bioenergy projects are pursued.



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- The proposed duration of auction contracts – 15 years has been modelled, but no duration in RESS paper confirmed. IrBEA recommends a 20-year duration to match support to project life.

8. About the Irish Bioenergy Association

IrBEA is an industry association with over 180+ members representing the bioenergy industry on the island of Ireland. IrBEA seeks to increase understanding of issues related to biomass supply chains used to generate energy in the form of heat, electricity and transport. The main objectives of the association are to influence policy makers, to promote the development of bioenergy, and to promote the interests of its members. Improving public awareness, networking and information sharing, and liaising with similar interest groups are other key areas of work in promoting biomass as an environmentally, economically and socially sustainable energy resource. Overall direction is provided by the CEO together with the President and Vice President who work closely with the management committee which comprises 15 members from all parts of the bioenergy industry. IrBEA operates a group structure where different parts of the bioenergy industry collaborate on topics such as transport biofuels, biomass energy and biogas/biomethane. IrBEA is also member of the European Biomass Association (AEBIOM) and the European Biogas Association (EBA).