

# Response of the Irish Bioenergy Association: DCCAE Biofuels Obligation Scheme

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## Consultation on Future Increases in the Biofuel Obligation Rate

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## About the Irish Bioenergy Association •

IrBEA ([www.irbea.ie](http://www.irbea.ie)) was founded in 1999. Its role is to promote the bioenergy industry and to develop this important sector on the island of Ireland. The association's main objectives are to influence policy makers to promote the development of bioenergy, and to promote the interests of 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. The organisation is a self-governing association of voluntary members (150+) and is affiliated to AEBIOM, the European Biomass Association, and EBA, the European Biogas Association.

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## Summary

Aggressive decarbonisation of the transport sector is necessary through a combination of increased use of sustainable biofuels, electrification of transport and the progressive taxation of carbon.

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 has also meant that a large proportion of the biofuel reported is notional.

It is essential that the 12% 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.

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. 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 a 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.

IrBEA does not support the proposal to extend the BOS to heating oil. It should be expanded to include all motive applications, rather than static applications. There are many viable renewable heat and energy efficiency solutions which have more long term strategic benefit than simple liquid fuel substitution in the heating sector.

IrBEA do not see any policy merit in supporting the carryover of certificates. The biofuel levy is also an unnecessary market barrier and should be removed. The levy is not required to fund NORA’s operations as a surplus of €92.5m was achieved in 2016.

## 1 Introduction

Ireland has committed to a 10% renewable transport (RES-T) target by 2020 through the Renewable Energy Directive (2009/28/EC).

Biofuels are expected to make the majority contribution to this target, with a growing role for electric vehicles powered by renewable electricity.

To meet a 10% RES-T target, will require an approximate 12% reporting for inclusion of biofuel, due to the lower energy density compared to fossil diesel or petrol.

### 1.1 Challenge in meeting 2020 targets

A number of complexities arise in meeting this target, in particular:

- It is completely overlooked that approximately 40% of engine fuel used in Ireland is not subject to the Biofuels Obligation, and is not considered within the 10% RES-T target. Fuels used in aviation, agriculture, marine and construction sectors are excluded from consideration.
- The double-counting of some biofuels, such as biodiesel derived from tallow or used cooking oil (UCO). In practice this has meant that Ireland's targets, are being met via a notional extra credit for some biofuels.
- The biofuels obligation in Ireland has primarily supported the import of biofuels, with the notable exception of Green Biofuels Ireland production plant in New Ross. The impact on energy security would be much improved if indigenous production were stimulated.
- According to the 2016 BOS report, only 17.5% of biofuel feedstocks originated in Ireland.

### 1.2 Track Record

The framing and implementation of biofuels policy over the last decade has not been a positive experience for the vast majority of Irish biofuel producers. One of the main reasons has been a lack of coordination and consultation with the industry on appropriate policy implementation.

Several decentralised producers of Pure Plant Oil (PPO) shut down due to a lack of local market access for their product. The main source of Irish biofuel is a factory in New Ross which produces sustainable biodiesel from recycled cooking oil and tallow.

These industry setbacks have occurred despite a growing domestic market for biofuels mandated under the Biofuel Obligation Scheme (BOS), when domestic production should be expanding.

## 2 Response to Consultation Questions

### 2.1 Question 1: Increasing BOS Rate

In order to meet Ireland's 2020 renewable energy target in the transport sector, it is proposed to increase the biofuel obligation rate to 10% from 2019 and circa 12% from 2020.

-Do you support this policy measure?

-What biofuels do you envisage contributing to meeting these increased rates?

-What alternative approaches do you view as being more likely to achieving Ireland's 2020 renewable energy target in the transport sector?

IrBEA fully supports Ireland meeting and exceeding our obligations under the RED. If 12% (by volume) is to be achieved in just 3 years, then substantial progress towards the target must continue.

The target will continue to be met as at present by primarily importing biofuels. There is however untapped potential to use biomethane as a transport fuel, particularly for captive fleets which could double the existing level of biofuel use based solely around using low-cost waste feedstocks.

## 2.2 Question 2: Cost Impact

-What impact do you believe [Increasing BOS rate] will have on fuel prices?

-What alternative approaches could provide a more cost-effective method of achieving Ireland's 2020 renewable energy target in the transport sector?

The cost impact of increasing BOS is a function of the counterfactual fuel cost (i.e. oil price) and taxation policy.

If oil prices rise to a level which makes biofuels commercially viable, then there is no net cost impact. If carbon-emitting fossil fuels are progressively taxed at a level that addresses any cost gap, there is also no net cost impact.

## 2.3 Question 3: Carryover of Certs

In order to maximise the contribution of the BOS to Ireland's renewable energy target in the transport sector, it is proposed to restrict / reduce the current level of use of carried over certificates in 2020.

- Do you support this approach?

- What would be the appropriate level of carryover for use in 2020 and beyond?

- If you feel the current level should be maintained, please provide reasoning including an alternative approach to maximising the contribution from biofuels to achieve Ireland's renewable energy target in the transport sector.

IrBEA do not see any policy merit in supporting the carryover of certificates, at any level. Sustained growth of actual biofuel use on an increasing annual trajectory is preferable. Flexible administrative mechanisms allowing a notional fulfilment of market obligations in a given year does not support production of biofuels with real market demand.

If there is a real appetite or need for risk mitigation, this can be provided through normal private sector commercial practices, such as commodity hedging or forward contracts for purchase of biofuels for subsequent years.

## 2.4 Question 4: Meeting FQD Requirements

The recently amended Fuel Quality Directive (Directive 98/70/EC) places obligations on suppliers to reduce emissions – specifically the reduction in carbon intensity of at least 6% to be met by 31 December 2020 compared to 2010.

-How do you envisage this requirement being met?

-Are there any measures that Government could take to assist obligated parties reach the Fuel Quality Directive target?

The most obvious solution is to meet and exceed if necessary the existing obligations under the Renewable Energy Directive.

Aggressive decarbonisation of the transport sector is necessary through a combination of increased use of sustainable biofuels, electrification of transport and the progressive taxation of carbon.

## 2.5 Question 5: Blending Barriers

Increasing the biofuel obligation rate is likely to involve the introduction of fuels with higher concentrations of biofuel (such as E10 and B7). This may lead to compatibility issues with older vehicles, consumer cost, the necessity of consumer awareness in order to ease its introduction, and potentially the development in forecourt infrastructure.

-What do you view as the technical and consumer challenges associated with increasing the biofuel obligation rate (including introducing fuels such as E10 and B7)?

-Can fuels such as E10 and B7 be brought to the market in Ireland by 2020?

-Are there technical barriers to achieving 7% conventional biodiesel blend (B7) averaged across the full year, including the winter months?

-For biodiesel blend rates higher than 7%, are drop-in biofuels a viable solution for Ireland?

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 the majority of consumers are currently unaware that they are purchasing biofuels every time they procure transport fuel.

Overall energy policy is trying to encourage the concept of “energy citizens” (see Energy White Paper<sup>1</sup> chapter 4 “From Passive Consumer to Active Citizen”) and describes citizens taking ownership of their energy choices: ‘All citizens are energy citizens, interacting with the energy system as consumers, employees, **transport users**, householders and landowners. Every citizen has a role to play in the energy transition. Consumer choice, in the home, in the community, at work and **when travelling** is an important aspect of the energy citizen’s role and responsibility.’ [emphasis added]

There is an urgent need to highlight to consumers the climate impact of their energy choices, and doing so when using road transport fuel is an important part of this.

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<sup>1</sup> <https://www.dccae.gov.ie/documents/Energy%20White%20Paper%20-%20Dec%202015.pdf>

## 2.6 Question 6: Advanced Biofuels

Since the publication of A European Strategy for Low Emission Mobility in July 2016, the European Commission has designated that food based biofuels have a limited role in decarbonising the transport sector due to concerns about their actual contribution to the decarbonisation. It is envisaged that a gradual reduction of food based biofuels and their replacement by more advanced biofuels will realise the potential of decarbonising the transport sector and minimise the overall indirect land-use change impacts. The EU Commission has signalled that the trajectory of biofuels is away from first generation biofuels towards advanced or second generation biofuels. This is primarily to be achieved through the introduction of a cap on first generation biofuels and the incentivisation of advanced biofuels.

-How should the development of increased levels of advanced biofuels be supported in Ireland?

The potential for biomethane as a transport fuel remains largely untapped, and not considered adequately in DCCAE's energy policies to-date. This would be produced indigenously from agri-waste or industrial waste streams and would not impact on food production, but would in fact have many positive environmental outcomes, including diversion of waste from landfill and improvement of water quality.

According to a recent SEAI Assessment of Cost and Benefits of Biogas and Biomethane in Ireland<sup>2</sup>, low-cost waste feedstocks could produce up to 126 ktoe of biogas per year, equivalent to just over 3% of natural gas supply in 2015. A much larger resource, albeit at a higher cost is grass silage. Much of the grassland used for grazing is currently under-utilised, and through improved management of livestock and improved grass cultivation, additional land could be freed from grazing and be available for additional silage production or for other enterprises. If this can be achieved, then it is estimated that grass silage could produce up to 837 ktoe of biogas, equivalent to 22% of natural gas supply in 2015.

An aggressive research programme is needed to commercialise the many new sustainable biofuel (liquid and gaseous) pathways that are possible using materials grown in Ireland. The work of the Bioenergy and Biorefinery Competence Centre in this regard is to be commended and further supported by both industry and government.

IrBEA does not agree with the rationale set out in the consultation paper for notifying a 0.25% advanced biofuels target for 2020 to the EU commission, rather than the 0.5% indicative target suggested. While it is challenging to achieve, it is no more challenging for Ireland than any other EU member state, the 0.25% target is not justified and demonstrates a lack of ambition for decarbonising the Irish transport sector, both in the short term but also for the period after 2020.

Regardless of EU targets, Irish energy policy makers should be more assertive and show independent thinking and leadership in setting out national energy goals and objectives, which are appropriate to the poor energy security context in Ireland.

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<sup>2</sup> <https://www.seai.ie/resources/publications/Assessment-of-Cost-and-Benefits-of-Biogas-and-Biomethane-in-Ireland.pdf>

## 2.7 Question 7: Heating Sector and BOS

Currently, the Biofuels Obligation Scheme is limited to the transport sector. In the heating sector, there is a high use of fossil fuels (including oil) and a target 12% of energy consumption from renewable sources by 2020.

-What is your opinion on the potential for an obligation scheme (similar to the Biofuels Obligation Scheme) in the heat sector?

-What do you see as the technical barriers to introducing such a scheme?

IrBEA does not support this proposal. The BOS should be expanded to include all motive applications, rather than considering static applications. It is completely overlooked that approximately 40% of engine fuel used in Ireland is not subject to the Biofuels Obligation, and is not considered within the 10% RES-T target. Fuels used in aviation, agriculture, marine and construction sectors are excluded from consideration.

There are many viable solutions for decarbonising the residential heating sector which should be considered lower-hanging fruit and of greater strategic benefit. These should be prioritised over a liquid fuel substitution measure. Existing solutions include:

- Renewable heating solutions such as biomass or heat pumps which can displace 100% of existing oil use
- Aggressive energy efficiency measures which dramatically reduce the residential heating requirement
- Expansion of district heating which decouples the homeowner from primary energy choice
- Progressive taxation of carbon-emitting heating fuels (including oil and kerosene)

A large part of the market for transport fuel products is currently not part of the BOS, and should be brought into the BOS. This includes, for example the following items in Ireland's energy balance<sup>3</sup>:

- 36 ktoe used by Irish Rail with zero biofuel inclusion
- 159 ktoe used in agriculture, no biofuel
- 19 ktoe used in fisheries, no biofuel
- 86 ktoe used in "navigation" (definition unclear), no biofuel
- 234 ktoe in "unspecified" transport uses, 7 ktoe biofuel included
- A subset of the 89ktoe on public services, for example parks maintenance

## 3 Further Recommendations

### 3.1 Biofuel levy

The Biofuel levy of €0.02 per litre collected by the National Oil Reserves Agency (NORA) should be reviewed. The principal reason for NORA's existence is to monitor and procure emergency oil stocks, and the NORA levy applied to fossil fuels is to manage and procure 100 days of emergency oil stocks.

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<sup>3</sup> <https://www.seai.ie/resources/energy-data/> ktoe = thousand tonnes of oil equivalent



The application of the same levy to biofuels is not appropriate. It is an unnecessary barrier and counter to the principles of fostering diversity of fuels sources and enhancing energy security. It is also against the principals of the RED, which requests the removal of barriers to incorporation of renewable energy in the supply chain.

NORA does not require the biofuel levy to fund its operations. An operating surplus of €92.5m was recorded for 2016<sup>4</sup>. This is not distributed to shareholders but simply added to reserves which presently stand at just under €1 billion. Such funds should be used to support the decarbonisation of the transport sector.

### 3.2 Carbon taxation

Progressive carbon taxation is an effective tool in incentivising investment in renewable energy.

Ireland's carbon tax covers nearly all of the fossil fuels used by homes, offices, vehicles and farms. It started in 2010 at €15/ton<sup>5</sup> and rose to €20/ton in 2012. The tax generates roughly €100 million in revenue per €5 of tax, and it currently draws about €400 million annually according to the Carbon Tax Center<sup>6</sup>.

The carbon tax has not increased progressively as envisaged. It is not as yet a meaningful incentive at consumer level. Standard fuel duties should be substituted by progressive carbon taxation, reaching a point where carbon taxation accounts for a greater proportion of tax than general fuel duty.

The revenues raised under carbon taxation go directly to the exchequer, and are not allocated towards funding any decarbonisation measures. Carbon taxation is a subset of mineral oil tax (MOT) duty, with both bundled together as a single duty rate<sup>7</sup>. Carbon taxation should be very clearly highlighted, otherwise the economic signal is not as effective in encouraging consumers to decarbonise their energy consumption.

Table 1: Mineral Oil Taxation (Revenue, 2014)

€ per 1,000 litres	Non-Carbon	Carbon Charge	Total MOT Rate
Petrol	541.84	45.87	587.71
Aviation Gasoline	541.84	45.87	587.71
Heavy Oil (Auto-Diesel)	425.72	53.30	479.02
Heavy Oil (MGO)	47.36	54.92	102.28
Fuel Oil	14.78	61.75	76.53

<sup>4</sup> <http://www.nora.ie/fileupload/Financial%20Statements%202016.pdf>

<sup>5</sup> Per ton of CO<sub>2</sub>-equivalent. In practice this equates to 5.3 c/l of diesel and 4.6 c/l of petrol

<sup>6</sup> <http://www.carbontax.org/where-carbon-is-taxed/>

<sup>7</sup> <http://www.revenue.ie/en/tax/excise/duties/excise-duty-rates.html>