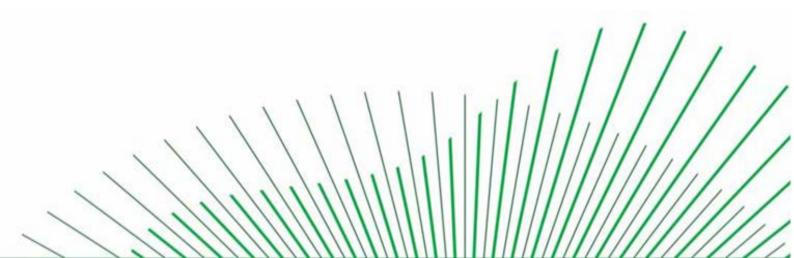
# Bord na Móna

# Consultation on Renewable Fuels for Transport Policy

Consultation Response 28 April 2023



#### 1. Introduction

Bord na Móna (**BnM**) welcomes the opportunity to respond to the Department of Transport consultation on the Renewable Fuels for Transport Policy. The target to reduce carbon emissions from the transport sector by 2030 by 50% is ambitious and will require a co-ordinated effort across different sectors of the economy to achieve it.

While some positive trends are emerging in the passenger and small fleet markets with a notable uptick in the purchase of electric vehicles, significant challenges still exist to decarbonise certain transport modes such as inter-city coaches, rail and heavy goods vehicles. BnM see hydrogen as a viable alternative in these areas that can provide the convenience of a fossil fuel without the associated carbon emissions. Plans to increase the sustainability of our transport fuels through the Renewable Fuel Transport Obligation (RFTO) should be accompanied by a clear pathway to fully decarbonise the sector – we hope that the deliverables in the Climate Action Plan, and the highly anticipated Hydrogen Strategy, will provide sufficient clarity for businesses to invest in renewable fuels.

BnM believe that renewable hydrogen will play an important role in decarbonising the transport sector post 2030. Electrification appears to be the most efficient method for decarbonising much of the transport sector, but we believe that certain areas will remain difficult to directly electrify. Hydrogen can play a complementary role to electrification in these sectors. However, to fulfil this role it is important that the renewable hydrogen industry in Ireland is established and grows so it can supply indigenous renewable hydrogen at scale.

In responding to this consultation, we focus on the questions where we have relevant experience and knowledge. To summarise the key points raised in our response:

- Renewable hydrogen can contribute significantly to decarbonising the transport sector in
  the future. However, the renewable hydrogen industry in Ireland is only starting to develop.
  For it to fulfil its potential will require co-ordination between stakeholders across the value
  chain from hydrogen producers, vehicle manufacturers and end users. Government agencies
  and semi-state bodies can play an instrumental role in realising this potential.
- Negotiations between the European Council and the Parliament on the ongoing revision of
  the Renewable Energy Directive (RED 3) indicate that there will be a binding requirement of
  at least 1% of renewable fuels of non-biological origin (RFNBOs) in the share of renewable
  energies supplied to the transport sector in 2030. For Ireland to achieve this it is essential
  that the initial steps for integrating renewable hydrogen into the transport sector begin
  soon.
- While cognisant of the ambition of our 2030 targets for decarbonisation of the transport sector, further reductions will be required in the following decades. Achieving this will, in BnM's view, require the use of advanced biofuels, sustainable aviation fuels (SAF) and renewable fuels of non-biological origin (RFNBO). Ireland has the potential to produce these indigenously but if we are to produce them at the scale required, we must begin to develop the expertise and production capacity now.
- Identification of transport modes where hydrogen will be required, such as rail lines and bus
  routes, and the commencement of pilot projects would help kick start the hydrogen industry
  in Ireland. Which will provide immediate benefits to decarbonising transport but also ensure
  that Ireland has the ability to begin producing SAF and RFNBOs at scale in the medium term.

#### **Section 1: Review of the RTFO Scope**

#### **Rail Transport**

What do you think are the key considerations to be considered within this review?

BnM believes that expanding the RFTO to include rail transport is important. Although rail contributes a small proportion of emissions in the broader transport sector, the ambitious sectoral emission ceiling for transport means that all modes must expand their efforts to reduce emissions. Electrification of the rail network where possible is likely but we understand that certain routes are not suitable for electrification and hydrogen could be an alternative solution. BnM also believes that the pathway for decarbonizing rail transport could play a key role in enabling the production of renewable fuels of non-biological origin, such as green hydrogen.

The green hydrogen industry in Ireland is only beginning to develop, and currently, low demand and a lack of guaranteed offtakers are barriers to growth. As a single customer with a relatively fixed demand profile, Irish Rail would make an excellent partner for the supply of renewable hydrogen for use in the transport sector. As a reliable long-term offtaker for renewable hydrogen producers' Irish rail could be a catalyst for the development of the renewable hydrogen industry in Ireland.

Do you agree or disagree with the proposed review timeline, and reasons why?

To facilitate using renewable hydrogen in the rail sector and to contribute to achieving our 2030 targets, a policy signal is needed. The lead time to develop renewable hydrogen projects in Ireland is substantial and if a role is seen for it in the rail sector then the sooner a decision is made the better.

#### **Aviation and Maritime Fuels**

What incentives would you like to see for supply of renewable transport fuels in aviation and maritime fuels?

BnM focus to date has been on the production of renewable transport fuels for aviation so we will restrict our comments in this section to that industry.

BnM is assessing the viability of producing hydrogen-based e-fuels, including SAF in Ireland. However, the initial capital costs to begin producing SAF are prohibitive. A significant challenge to beginning SAF production is scale with even a small SAF plant requiring large volumes of hydrogen and carbon. We believe that direct grant support or tax incentives to reduce the capital investment requirements is required to enable initial SAF production projects in Ireland. As the industry develops and the supply of SAF increases, the RFTO (Renewable Fuel Transport Obligation) may provide the required incentives for SAF production, but currently, it is not sufficient to underpin a commercial case. Obligation schemes such as the RFTO can work well for established industries but do not provide the revenue certainty required for a nascent market such as SAF production.

BnM believe we could begin SAF production within Ireland in the near future if there is sufficient support provided. The approach to SAF production BnM is assessing would require a source of sustainable carbon as well as renewable hydrogen. We have identified two potential sources of carbon that could be utilised in the production of SAF, from the Edenderry biomass plant or from the planned Cul na Mona anaerobic digestor. The carbon sourced from these would be biogenic and meet sustainability requirements. However, the installation of carbon capture units is costly. While currently there is no renewable hydrogen production in Ireland, this will change over the coming years, BnM is progressing the Mount Lucas electrolyser project to begin production of renewable hydrogen in Ireland soon.

The targets for the aviation sector with respect to SAF usage are ambitious. It appears clear that there will be significant demand for SAF in the future and great potential for a SAF production industry in Ireland given or large renewable electricity resource. However, to realise this potential the hydrogen industry in Ireland will need to develop and scale up. BnM sees the road mobility and rail sectors as the first steps in developing this indigenous hydrogen industry.

What do you see as the key challenges or enablers to incentivise the supply of renewable transport fuels in aviation and maritime sectors?

BnM sees two primary challenges in relation to the production of SAF in Ireland that will need to be overcome: the supply of resources to produce SAF, carbon and hydrogen, is insufficient at this time. This can be overcome but will require support and collaboration between stakeholders. Secondly, we do not believe that the RFTO by itself will provide sufficient financial incentives to support the development of a SAF production industry.

In terms of enablers, collaboration between the public and private sectors will be the most important factor in creating a policy framework and stimulating market demand for fuels. A pilot project to understand the challenges in bringing SAF to market in Ireland would be especially helpful. Collaboration with academia could also prove useful in refining the processes and technologies involved in SAF production.

#### Section 2: RTFO rate, targets, and limits

What should be the key considerations – social, economic, and environmental, in establishing in 2025 a subtarget for renewable fuels of non-biological origin (RFNBO) and associated buy-out?

The introduction of a sub target for RFNBO, we believe, is necessary to enable Ireland to meet its carbon reduction targets for the transport sector. Facilitating the transport sector abiding by the carbon budget will have significant positive environmental impacts, limiting the overall emissions of greenhouse gases. BnM believes if this is achieved using RFNBOs produced in Ireland there will also be substantial economic benefits as the vast majority of our transport fuels are currently imported. We see the primary path to achieving this is via the utilisation of renewable hydrogen in the transport sector.

The introduction of a sub target for RFNBO will impose costs on obligated parties in the short term and of course the social impacts of this need to be considered. Given the ultimate requirement for transport to decarbonise we believe it should be done. It is essential however that the targets are

achievable, obligated parties being unable to source RFNBOs and simply paying the associated buyout should be avoided. This outcome can be avoided by ensuring the development of a renewable hydrogen production industry in Ireland.

What considerations should be included in this review – including possible social, economic, and environmental impacts?

The granting of additional certificates for specific fuels is one of the key policy levels within the RFTO scheme to incentivise investment in less commercially viable renewable fuels. In doing so, it is important that the correct signals are provided to ensure Ireland has the correct mixture of fuels to facilitate further decarbonisation of the transport sector beyond 2030. It will take many years to build up the production capacity of advanced biofuels, RFNBOs and SAF but we believe they will be required in the medium to long term as decarbonisation ambitions increase. It is important that necessary short-term costs are incurred to achieve the long-term goals.















Submission by Chambers Ireland to the Department of Transport regarding the Draft Renewable Transport Fuel Policy 2023-2025



# **Contents**

About Chambers Ireland	3
Chambers Ireland perspective on the renewable transport fuel policy	4
General	4
Integration with the United Nations Sustainable Development Goals	4
The State's planning system requires urgent reform	6
Consultation with communities	6
Other challenges	7
Key Points	9
Questions	10
Section 1: Review of the Renewable Transport Fuel Obligation (RTFO) Scope	10
Rail transport	10
Renewable electricity - In road and rail transport	12
Aviation and maritime fuels	12
Non-road mobile machinery	13
Section 2: RTFO rate, targets, and limits	14
The RTFO Rate	14
E10 Mandate	14
Advanced biofuel obligation	15
Renewable fuels of non-biological origin (RFNBO)	15
Additional certificates to incentivise certain RTF supply	16
Section 3: Supporting Compliance	17
EU Greenhouse gas reduction target	17
Sustainability and GHG criteria compliance - EU database and supervision of C	BS 17
Safeguarding against risk of fraud and other indirect effects	18
High ILUC risk	19
Section 4: Ongoing review of evidence and research supporting the policy	21



## **About Chambers Ireland**

Chambers Ireland is an all-island business organisation with a unique geographical reach. Our members are the Chambers of Commerce in the cities and towns throughout the country – active in every constituency. Each of our member Chambers is central to their local business community and all seek to promote thriving local economies that can support sustainable cities and communities.

Our Network has pledged to advocate for and support the advancement of the United Nations Sustainable Development Goals (SDGs). Accordingly, we use the Goals as a framework to identify policy priorities and communicate our recommendations. We have a particular focus on five of the goals encompassing decent work and economic growth (SDG 8), sustainable cities and communities (SDG 11), Gender Equality (SDG 5), Industry, Innovation and Infrastructure (SDG 9) and climate action (SDG 13).<sup>1</sup>

 $<sup>^1 \</sup>text{The Chambers Ireland SDGs. Available at: } \underline{\text{https://www.chambers.ie/policy/sustainable-development-goals/chambers-ireland-sdgs/} \\$ 



# Chambers Ireland perspective on the renewable transport fuel policy

#### General

As an organisation with the SDGs at the heart of our operations, we welcome the opportunity to contribute to the consultation regarding the Department of Transport's the Draft Renewable Transport Fuel Policy 2023-2025. We have consistently argued<sup>2</sup> for greater and better investment in our transport infrastructure not only because of the quality-of-life benefits, but also for the economic competitiveness benefits and environmental benefits.<sup>3</sup> Our Network is united in the vision of an Ireland where localities are connected to become more person-focused.

There is no form of renewable energy capacity that will not be useful when it comes to decarbonising our transport system. The Department's strategy should therefore be technology-neutral and not focus inappositely on one technology over the other. Our approach will hence need to be flexible to ensure that, as we encounter the novel problems that will emerge over the next fifteen years, we have access to *all* the tools required to address those challenges. A public transport system powered by sustainable, renewable resources is central to achieving that vision, and achieving the State's target of a 50% reduction in carbon emissions in the transport sector by 2030 as agreed in July 2022,<sup>4</sup> and a 90% reduction at a minimum - as outlined in the European Green Deal<sup>5</sup> - by 2050.

### **Integration with the United Nations Sustainable Development Goals**

We are of the view that Hydrogen energy should be a core aspect of the State's transition to zero carbon, as planned by the European Green Deal and the United Nations Sustainable

 $<sup>^2\</sup> https://www.chambers.ie/wp-content/uploads/2020/03/Chambers-Ireland-Sustainable-Mobility-Consultation.pdf; https://chambers.ie/wp-content/uploads/2022/01/Chambers-Ireland-Submission-on-the-All-Island-Strategic-Rail-Consultation.pdf; https://chambers.ie/wp-content/uploads/2021/03/Chambers-Ireland-response-to-the-Department-of-Transport-TRL-report-on-escooters.pdf; https://chambers.ie/wp-content/uploads/2019/02/Chambers-Irelands-Submission-to-DTTAS-.pdf; https://chambers.ie/wp-content/uploads/2023/03/CycleConnects-Submission-Nov-2022.pdf$ 

 $<sup>^3\,\</sup>underline{\text{https://chambers.ie/wp-content/uploads/2020/03/Chambers-Ireland-Sustainable-Mobility-Consultation.pdf}$ 

 $<sup>{}^4\,\</sup>underline{\text{https://www.gov.ie/en/press-release/d3341-transport-vision-in-climate-action-plan-will-transform-how-we-travel-over-the-coming-7-years/release/d341-transport-vision-in-climate-action-plan-will-transform-how-we-travel-over-the-coming-7-years/release/d341-transport-vision-in-climate-action-plan-will-transform-how-we-travel-over-the-coming-7-years/release/d341-transport-vision-in-climate-action-plan-will-transform-how-we-travel-over-the-coming-7-years/release/d341-transport-vision-in-climate-action-plan-will-transform-how-we-travel-over-the-coming-7-years/release/d341-transport-vision-in-climate-action-plan-will-transform-how-we-travel-over-the-coming-7-years/release/d341-transport-vision-in-climate-action-plan-will-transform-how-we-travel-over-the-coming-7-years/release/d341-transport-vision-in-climate-action-plan-will-transport-vision-in-climate-action-plan-will-transport-vision-in-climate-action-plan-will-transport-vision-in-climate-action-plan-will-transport-vision-in-climate-action-plan-will-transport-vision-in-climate-action-plan-will-transport-vision-plan-will-transport$ 

 $<sup>^{5}\,\</sup>underline{\text{https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal\_enderse}.$ 



Development Goals. In the context of biofuels, it is critical they are used in the right way; they have the potential to decrease emissions and reduce the dependency of the transport sector on fossil fuel-derived sources. Both Hydrogen and biofuels can play a central role in helping to decarbonise the transport sector, by providing a low-carbon solution for existing technologies, such as light-duty vehicles in the near term, and heavy-duty vehicles, ships, and aircraft in the long term. This is particularly well-aligned with the advancement of our climate action commitments (SDG 13).

However, their role should not be understood as being strictly limited to decarbonising the transport sector. In line with our focus on decent work and economic growth (SDG 8), we envisage great potential for the use of innovative renewable energy technologies in creating employment in rural areas. In a broader sense, this also relates to creating sustainable cities and communities (SDG 11) in those areas where such projects can provide both direct and indirect employment opportunities for employees across a wide range of skillsets.

Similarly, the efficient market roll-out of biofuels is closely related to affordable and clean energy (SDG 7). Generally, biofuels have higher production costs<sup>6</sup> than their fossil fuel counterparts. Having the appropriate economic policy instruments in place to ensure an efficient roll-out will increase the share of renewable energy and the proportion of population on clean fuels. Similarly, co-locating any existing biorefineries will upgrade the infrastructure to make them sustainable. This will also increase efficient use of resources and ultimately encourage the adoption of these technologies. This would be in keeping with the State's commitment in terms of industry, innovation and infrastructure (SDG 9).

<sup>&</sup>lt;sup>6</sup> https://www.sciencedirect.com/science/article/abs/pii/S0016236112009052; https://www.sciencedirect.com/science/article/pii/S1389934119301364; https://www.sciencedirect.com/science/article/pii/S1364032118300492



#### The State's planning system requires urgent reform

Despite the obvious advantages of renewable energy projects, they are still not without challenges. For example, in recent years there has been a notable movement against windfarms, and the supply of biogas in certain rural areas.

Central to making sure renewable energy projects are successful is making sure they are not needlessly impacted by questionable planning disputes which prolong the process and increase costs. As we have seen in the context of our offshore renewable sector, regulatory certainty is key for investor confidence and ergo ensuring the cashflows are available.

We hold the concern that if the status quo is maintained and our planning laws are not meaningfully reformed, renewable energy projects will become subject to numerous concurrent appeals and postponed indefinitely. As of January 2023, 2,197 applications were submitted to the planning authority, with a decision overdue in 1,356 (62%) of cases. The Courts system and An Bord Pleanála urgently require substantially increased financial and administrative resourcing to handle the pandemic-related backlog of cases which have prolonged the hearing of planning appeals.<sup>7</sup> It is also of utmost importance that the Planning and Environmental Court will be implemented without delay. Both points are pivotal to ensure that any appeals to infrastructural projects of national importance – especially those which are central to the State's transition to zero carbon - can be processed within reasonable timeframes.

#### Consultation with communities

Related to the supply of renewable energy is the role of the Department in engaging with communities where projects are planned. Granted, the Department of Transport has a public awareness campaign in place for an E10 public information campaign, however it appears to have

<sup>&</sup>lt;sup>7</sup> https://www.irishexaminer.com/news/arid-41096947.html



overlooked the necessity of consulting with communities on proposed projects in their areas. This is critical in terms of guaranteeing the supply of renewable energy, not least biofuels alone.

In this context, communities need to be made aware that they benefit from the advancement of biofuel facilities in their area. It cannot be guaranteed that every community will align with a project and acknowledge its worth in terms of the State's obligations under the Renewable Energy Directive II,<sup>8</sup> the EU's new targets under Fit for 55,<sup>9</sup> or our national decarbonisation strategies. A clear communications strategy will be key to ensuring this. Via consultation with communities, the Department should communicate adequately the advantages of renewable energy production facilities for their area. Any disinformation relating to fears as to safety, odours, emissions or pollution risk relating to the projects should be clarified and addressed accordingly. This will help not only in getting projects off the ground, but in ultimately aiding those communities realise the wider benefits such as increasing local employment, which we have alluded to elsewhere in our submission. Otherwise, projects will be subject to oppositional campaigns by communities living near those projects, which ultimately affects supply.

## Other challenges

Ensuring the new transport strategy is technology-neutral, and not reliant on one technology only is critical. If the State's transport strategy is to be dependent in a large capacity on battery-powered vehicles in future, then all power used needs to be renewable. There will be considerable demand for electricity in future the more battery-powered vehicles are used. Principally, public transport works best in those areas of dense populations, however where it is financially viable for rural road-users, electric vehicles will likely increasingly be relied upon as one of the most sustainable (and not the most) transport options available in rural areas. Globally, the consequent increased demand will therefore translate into constraints on the supply of rare earth metals, which will likely increase the cost of electric vehicles. Recently, this has been

<sup>&</sup>lt;sup>8</sup> https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L .2018.328.01.0082.01.ENG&toc=OJ:L:2018:328:TOC

<sup>&</sup>lt;sup>9</sup> https://data.consilium.europa.eu/doc/document/ST-10488-2022-INIT/en/pdf



recognised at EU-level through the Critical Raw Materials Act and acknowledged through dialogue with the USA via the Trade and Technology Council.

Biofuels require significant innovation, technological development and scale-up. Consequently, if the Department is committed to using this range of innovative technologies in its decarbonisation strategy, then it needs to ensure that investors have regulatory certainty. The Department has a responsibility to give them the assurance that projects they invest in will not fall by the wayside, especially where the State has the power vested in it to do so. While the Department stipulated last November that funding would be available for research in the aviation sector, funding for research and development in these technologies should be increased in general, to encourage an indigenous industry to develop.

<sup>&</sup>lt;sup>10</sup> https://www.oireachtas.ie/en/debates/question/2022-11-29/196/?highlight%5B0%5D=fit&highlight%5B1%5D=55



# **Key Points**

- The Strategy should be technology neutral and not focus on one form of technology over others.
- The Department needs to prioritise the use of Hydrogen and Green Hydrogen where appropriate in its renewable transport strategy.
- A communications and consultation plan are required for communicating to communities the benefits of renewable energy projects in their area, which not only focuses on Ireland's climate action commitments.
- We are concerned about the future access to batteries for the transport sector due to supply chain constraints.
- The National Hydrogen Strategy needs to align with a renewable transport fuel strategy which accounts for the increased use of green hydrogen energy as a result of a widened RTFO scope.
- The State should encourage an indigenous renewable energy industry by increasing the funding for research and development for innovative Hydrogen and where appropriate biofuel technologies.
- Suppliers to the aviation sector ought to be required to supply renewable fuels which is equal in terms of proportion to their current supply of road and aviation fuels.
- If biofuels are to be used in the Strategy, then producers should be required to source feedstocks produced on degraded land or from crops planted on previously fallow land.
- The voluntary vulnerability assessment for biofuel production may fail unless the relevant economic operators are equipped with all the necessary tools including digital tools- to ensure they are compliant.
- Any planned decrease in high ILUC-risk biofuels supply to 2030 is meaningless unless verifying land use changes as sustainable is possible.



# Questions

Section 1: Review of the Renewable Transport Fuel Obligation (RTFO) Scope.

#### Rail transport

What do you think are the key considerations to be considered within this review? Do you agree or disagree with the proposed review timeline, and reasons why?

Chambers Ireland strongly supports the consideration of Hydrogen as a key consideration in the review. Chambers Ireland has consistently advocated for the appropriate use of Hydrogen in the State's transport policy, most recently in our submission to the Department of Environment and Climate Change regarding the National Hydrogen Strategy. We highlighted the immediate need for Ireland to utilise REPowerEU regarding 'overriding public interest' to fast track the grid upgrades that are needed to make our electricity networks more resilient and effective. We believe that the focus needs to be on delivering the infrastructure that will be required to service EU demand for large volumes of Green Hydrogen in particular. Our electricity networks will need to be developed to facilitate this, and so will our shipping and port infrastructure. Relatedly, Hydrogen storage is the fundamental element to a national Green Hydrogen industry. Storage is the only reason why we should be considering the development of Green Hydrogen; Hydrogen is a storage medium, it allows us to take unused electricity and bring it to that place and point in time when it is useful. It will therefore be the foundation that Ireland's post-carbon economy will be founded on. If the draft renewable transport fuel policy is to utilise Hydrogen technology as a core aspect of the policy, these points will need to be considered.

Large transport vehicles, HGVs, and Aviation are all likely to need Green Hydrogen. Because of this, we are pleased that Irish Rail is examining the future potential of hydrogen energy use for particular services, and the consideration that together with the potential for Hydrogen buses in the short-term, this could be a future means to meet a separate RFNBO (Renewable Fuels of

 $<sup>^{11} \</sup>underline{\text{https://chambers.ie/wp-content/uploads/2022/09/Chambers-lreland-submission-on-National-Hydrogen-Strategy-Consultation\_September-2022.pdf}$ 



Non-Biological Origin) sub-target longer term. At a high level, it could play an important role in helping the State meet its climate targets, notably our Climate Action plan commitment to halve the transport sector's Greenhouse Gas emissions by 2030. If published subsequently, the State will need to ensure its National Hydrogen Strategy is updated, if it does not account for the increased use of Green Hydrogen as a result of a widened RTFO scope.

Unfortunately, the fact is that the current ambition for decarbonising our public transport system using Hydrogen – not just our rail transport - lags far behind our European counterparts. Scotland has encouraged the use of Hydrogen-powered vehicles in its public transport system, with plans afoot to potentially facilitate the future-use of certain rail routes powered by the technology. <sup>12</sup> In 2020, Belfast launched fuel cell buses powered by hydrogen from local on-shore wind energy. <sup>13</sup> In Germany there has been an increasing acceptance by both the public and private sector that, along with battery hybrid trains, <sup>14</sup> Hydrogen technology should play a key role in decarbonising its rail services. <sup>15</sup> Regional service Landesnahverkehrsgesellschaft in Lower-Saxony notably commissioned fourteen hydrogen trains powered by fuel cell propulsion to run on a local route, which will replace 15 diesel trains. <sup>16</sup> Similarly, Deutsche Bahn – in conjunction with Siemens Mobility - also has the H2goesRail project in place, which plans to build more refuelling stations, hydrogen trains, with the aim to replace diesel trains along specified regional routes. As referenced elsewhere in our submission, this underlines the need to remain technology-neutral and not be too dependent on one technology in relation to the new Strategy.

The proposed review timeline appears reasonable to account for the operational changes by the CIE (Coras Iompair Eireann), and also a future amendment to the 2007 Act which would allow for the scope of the RTFO to be extended to rail transport fuels.

<sup>&</sup>lt;sup>12</sup> <a href="https://www.sdi.co.uk/invest-in-scotland/invest-in-projects/aberdeen-hydrogen-development-programme">https://www.aberdeenlive.news/news/aberdeen-news/scotrail-trial-new-hydrogen-service-7552204</a>

 $<sup>^{13}\,\</sup>underline{\text{https://smartbelfast.city/story/translink-hydrogen-buses/}}$ 

<sup>&</sup>lt;sup>14</sup> https://www.hydrogeninsight.com/transport/will-no-longer-be-considered-hydrogen-trains-up-to-80-more-expensive-than-electric-options-german-state-finds/2-1-1338438

<sup>15</sup> https://www.dw.com/en/german-train-line-switching-fully-to-hydrogen/a-62907198; https://www.dw.com/en/german-train-line-switching-fully-to-hydrogen/a-62907198

 $<sup>^{16}\,\</sup>underline{\text{https://www.dw.com/en/german-train-line-switching-fully-to-hydrogen/a-62907198}}$ 



#### Renewable electricity - In road and rail transport

Do you agree that existing supports for cross-sector renewable electricity supply are sufficient to incentivise renewable electricity in transport consumption? If you agree, do you think that there is merit in reviewing this position again in 2025 or a later date? Do you think that models such as in the Netherlands should be explored further for the benefits for electrification of transport?

The approach suggested by the Department regarding supports for incentivising renewable electricity in transport consumption appears reasonable. However, in terms of the cross-sectoral deployment of hydrogen, the Government could take the role of a customer with guaranteed demand through offering future contracts to Hydrogen production firms. The State is often the largest single customer in many areas, and so is therefore in a position to guarantee demand for hydrogen by, for example, converting the bus fleet from diesel to Hydrogen, by mandating that all state bodies will have converted from diesel backup generators to Hydrogen fueled ones by 2030. Ultimately, if there is insufficient demand, the excess Green Hydrogen can be used to reduce our CO2 emissions if it is fired in thermals plants.

#### **Aviation and maritime fuels**

What incentives would you like to see for supply of renewable transport fuels in aviation and maritime fuels? What do you see as the key challenges or enablers to incentivise the supply of renewable transport fuels in aviation and maritime sectors?

Among other policies, the European Union has the Emissions Trading Scheme in place, to complement fuel taxes and aircraft standards. These are vital to lower aviation emissions and support the sector in decarbonising, however there ought to be a greater emphasis on advanced low carbon fuels. Low carbon alternatives to kerosene such as biojet are produced from residues and are subject to strict sustainability criteria, and their climate impact is significantly less than



commonly-used fossil fuels.<sup>17</sup> This is notwithstanding the fact that sourcing such fuels, and making them economically-viable is not without challenge; globally, biojet fuel development is restricted by factors such as economy and availability of raw materials. For as long as kerosene is exempt from VAT and excise duty, more sustainable alternatives will remain significantly more expensive. Logically, the cost of providing alternative fuels for aviation should fall on those providing the services and those who fly. This is especially the case given that the sector is exempt from most taxes (e.g VAT) and therefore should not be further subsidised.

Overcoming this could entail a mandate to encourage supply in the aviation sector, however, a mandate would likely not increase the total volumes of renewable fuels supplied through RED II as the European Commission target is already relatively stretching. To that end, suppliers to the aviation sector ought to be required to supply renewable fuels which is equal in terms of proportion to their current supply of road and aviation fuels. To ensure no additional demand is created, aviation fuels should not count towards the denominator of the total volume of fuel to be supplied.

#### Non-road mobile machinery

Do you agree with the inclusion of non-road mobile machinery (NRMM) within the RTFO? If this were introduced as a reduced RTFO rate initially what contribution would be appropriate – 75%, 50%, 25% or other? In your view what should be the key considerations for this policy proposal? What is the appropriate balance of impacts including social, economic, and environmental considerations?

Chambers Ireland does not have a position on the inclusion of non-road mobile machinery (NRMM) within the RTFO.

<sup>17</sup> https://link.springer.com/article/10.1007/s43979-022-00026-4#:~:text=Compared%20with%20fossil%20fet%20fuels,reforming%20has%20minimal%20environmental%20impact.



#### Section 2: RTFO rate, targets, and limits

#### The RTFO Rate

Given the proposed trajectory of increase in the RTFO to meet ambitious biofuel blending targets in the climate action plan, what steps can be taken within this policy to avoid future biofuel lock-in? What safeguards and mitigation could be included, within this policy or related Government policy, against possible socio-economic and distributional impacts, to ensure just transition?

In order for the RTFO to be a success, it needs to ensure it is not an incentive for non-sustainable behaviour. The UK requires suppliers to publicly report on the carbon savings and sustainable production of biofuels supplied. This seems to be a reasonable approach, however for reasons relating to fraud and land-use change detailed in our submission, it will be essential that the relevant authority(ies) will be equipped to verify the sustainability of the biofuels used for blending purposes. State policy should not be a tool used to incentivise a practice which while on the face of it is sustainable but in reality is not.

#### E10 Mandate

To ensure achievement of the climate action plan target of E10 by 2025, it is proposed to keep under review the supply of ethanol, with a view to a possible increase in the minimum percentage ethanol in petrol by regulation in 2025: Do you agree or disagree with this approach? And why?

This approach seems reasonable. Incremental increases would make the most sense in order to achieve compliance with RED II requirements in 2030.



#### **Advanced biofuel obligation**

Do you agree with the proposal for a higher national advanced biofuel obligation rate, beyond EU requirements? What should the Department consider in setting the advanced biofuel obligation rate, including social, economic, and environmental impacts?

We agree with the stipulation in the consultation document that targets and demand incentives may move too quickly ahead of the available production and supply of advanced biofuels and feedstocks. Increasing the advanced biofuel obligation rate beyond EU requirements would be unwise, especially when globally there has been a notable concern regarding feedstock supply.<sup>18</sup>

#### Renewable fuels of non-biological origin (RFNBO)

What should be the key considerations –social, economic, and environmental, in establishing in 2025 a sub-target for renewable fuels of non-biological origin (RFNBO) and associated buy-out?

It is increasingly likely that additional targets will be set down at EU level via amendments to RED II over the coming years. This makes it difficult to establish a sub-target. Nonetheless, the Strategy should consider a range of RFNBOs – such as Hydrogen - where appropriate. This is in line with the point made elsewhere in our submission, that it ought not to be too reliant on one technology.

<sup>&</sup>lt;sup>18</sup> https://www.iea.org/reports/renewables-2022/executive-summary



#### Additional certificates to incentivise certain RTF supply

What considerations should be included in this review -including possible social, economic, and environmental impacts?

We do not have anything to add to this point.



#### **Section 3: Supporting Compliance**

#### **EU Greenhouse gas reduction target**

Would overall compliance be better achieved if the renewable transport fuel obligation were solely based upon a greenhouse gas intensity reduction rather than the current renewable energy obligation? Would you agree with introduction of a greenhouse gas intensity reduction basis for the 2025 obligation period?

In the past year, volatile energy price increases affected circa 80% of Irish road users, <sup>19</sup> thereby adding considerable costs and uncertainty to businesses. Accordingly, our preferred option is to apply the current gradual process of RTFO rate increases instead of the mooted increase in penalties and fines. In our view, any proposed penalty increase would entail a particularly difficult balancing act to ensure the resulting burden on businesses is not disproportionately impactful. We agree with the Department's statement that any proposed penalty increase – however necessary - would need to be introduced on a graduated basis and over a period of time. More broadly, this is important to avoid any consequent sharp cost impact on consumers through increased prices. We agree with the introduction of a greenhouse gas intensity reduction basis.

#### Sustainability and GHG criteria compliance – EU database and supervision of CBS

From your perspective, where does the focus need to be over the next two years concerning the implementation of the EU measures for oversight of sustainability and GHG reduction for renewable energy in transport?

At the very least, the scope and requirements of supervision by the competent authorities on the competent bodies will need to be set out clearly, and it is critical that the competent body(ies)

<sup>&</sup>lt;sup>19</sup> https://www.irishtimes.com/motors/2022/08/03/surging-fuel-prices-adversely-affecting-80-of-irish-drivers/



are adequately resourced in order to perform the oversight duties assign to them, particularly as the Implementing Regulation requires the competent bodies to submit 'all relevant information necessary' to aid audits or information requests by the competent authority. This is a broad definition which applies to any documentation the competent authority may wish to request. Accordingly, standardised processes are essential to efficiency. At a minimum, a list of the types of requested documents could be used to lessen uncertainty and the administrative burden on the competent body(ies).

#### Safeguarding against risk of fraud and other indirect effects

Concerning the proposal to establish a working group and a voluntary vulnerability assessment concerning biofuel fraud risk: Do you agree with this approach in addressing the recommendations of the biofuel study? If so, what are your views concerning the scope of the assessment?

A working group is appropriate but of itself not enough to safeguard against the risk of fraud. In this context, the effectiveness of a voluntary vulnerability assessment will be dependent on its ability to be extensive enough to mitigate fraudulent behaviour. Concerns exist and have been raised by other Member States regarding fraud along the supply chains of biofuels, in particular where used cooking oil is sourced from outside the European Union. In this context, traceability is a key issue and any voluntary scheme used will need to be stringent enough to adequately verify the product at all stages of the supply chain.

It is clear that while numerous voluntary schemes are recognised by the European Commission for biofuels, the concerns raised about the likelihood of fraudulent palm oil infiltrating the market are well-founded and substantiated by the data discussed in the Byrne Ó Cléirigh Report. It is critical that the sustainability of the biofuels involved is ensured. It should not be the case that biofuels are sourced and produced in such a way which negatively impacts biodiversity or takes place on land with a high carbon content, which is converted purely for that purpose. There is always the risk that diverting these crops to biofuels may lead to more land area devoted to agriculture, increased use of polluting inputs, and higher food prices.



In addition, the voluntary vulnerability assessment will be an overwhelming failure if relevant economic operators are not given enough time to adapt to the voluntary scheme. The Department will need to equip them with all the necessary tools – including digital tools- to ensure they are compliant. To that end, the Working Group should be useful in tracking compliance issues where they arise and raising them accordingly.

#### High ILUC risk

Do you agree with the proposed trajectory of decrease in high ILUC-risk biofuels supply to 2030, as set out in the policy statement? Should this be reduced annually, or every 2 or 3 years? Should the reduction to 0% be accelerated, e.g., by 2025 or earlier?

Though the principal aims and purpose of the decrease are well-intended, we have the reservation that quantifying and verifying land use changes themselves will be challenging. Making a decision on the proposed decrease in high ILUC-risk biofuels is hence superficial until an extensive, robust sustainability governance structure exists at EU level. Until this happens, the ability of the State to accelerate any reduction appears fruitless. Primarily this relates to the two reasons set out in the Byrne Ó Cléirigh Report which relate to the: 1) sustainability and 2) traceability of certain biofuels.

As an example, although Regulation (EU) 2019/807<sup>20</sup> encourages the production of biomass raw materials, stark limitations exist in estimating and monitoring the effects of direct and indirect land use change. This is an acute challenge when one considers the cases where the feedstock used may derive from the organic fraction of wastes from agriculture or forestry. In this context, ensuring the raw materials are sourced sustainably is key, but if the governance structure does not exist to verify same, quantifying the ILUC-risk is incredibly difficult. There is also the

 $<sup>^{20}\,\</sup>underline{\text{https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L\_.2019.133.01.0001.01.ENG}$ 



environmental risk to biodiversity loss, soil carbon and soil erosion which arise from overharvesting feedstocks, be they agricultural or forestry.

If biofuels are to be used in any context, then producers should be required to source feedstocks produced on degraded land or from crops planted on previously fallow land. This would increase acreage without appropriating land that would otherwise be used for food and feed production. This has been successful in Brazil, where 75% of corn ethanol production comes from second-crop production in existing fields.<sup>21</sup>

This is connected to our point detailed elsewhere in our submission; that in over-facilitating the supply of biofuels and being unable to verify the high ILUC-risk, environmental effects may be overlooked. An example of where this has been a challenge is the Renewable Fuel Standard in the USA, which promised to subsidise farmers to grow corn for biofuel production and boost energy independence in the U.S. Per an extensive empirical assessment on its impact on land use,<sup>22</sup> it instead led to increased fertiliser use, water pollution, and at a minimum 24% more emissions than petrol. This is a scenario which the Department should seek to avoid.

<sup>21</sup> https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Corn%20Ethanol%20Production%20Booms%20In%20Brazil%20 Brazilla Brazil 10-04-2020

<sup>&</sup>lt;sup>22</sup> https://www.pnas.org/doi/10.1073/pnas.2101084119



#### Section 4: Ongoing review of evidence and research supporting the policy

Concerning the proposal for a working group to progress further examination and research, addressing the policy challenge of EU obligations and domestic targets: Do you agree with this approach in addressing the conclusion in the Biofuel study? If so, what are your views concerning the scope of the examination and research needed?

The tension between EU obligation and the State's targets is best captured by the Byrne Ó Cléirigh report; ensuring that neither are viewed as incompatible is critical. We agree with the assertion that the State should increase the share of renewable electricity in transport and incentivise the supply of advanced biofuels, to ensure the State meets the requirements set out under EU law and its national targets for biofuels. However, where biofuels are used, it will be necessary to take into account the concerns regarding traceability and sustainability, which we have detailed in our submission.

In addition to the policy indicators, evidence and research identified in this policy statement, are there other evidence-based inputs which need to be considered to support future policy development and implementation?

We do not have anything to add to this point.

CIÉ Group of Companies
Response to
Consultation on Draft
Renewable Transport
Fuel Policy

#### Introduction

The CIÉ Group of Companies (including Bus Éireann, Iarnród Éireann, and Bus Átha Cliath) supports the development of renewable fuels for transport in Ireland and the opportunity to provide our views on the Draft Renewable Transport Fuel Policy 2023-2025. CIÉ is committed to sustainability, with the mission of driving research and innovation to help identify pathways toward a low carbon and energy-efficient public transport system.

# Section 1: Review of the RTFO Scope

#### Rail Transport

**Proposed action:** With consideration to the initial steps that have been taken by ClÉ this year at an operational level to comply with the RTFO, the timeline for the proposal to include rail within the RTFO will be extended to 2025.

**Observations sought:** What do you think are the key considerations to be considered within this review? Do you agree or disagree with the proposed review timeline, and reasons why?

#### **CIÉ Group Observations:**

CIÉ Group introduced B7 across its rail and bus fleets in 2023 following a complex process that included conducting a series of train engine compatibility trials, obtaining approval from engine manufacturers to utilise biofuel across all fleets without affecting engine warranties, negotiating a contract with CIÉ Group's fuel supplier to allow the purchase of B7 and balancing the increased costs of purchasing B7 fuel. However, there remains challenge for the Group in hedging the biofuel product in line with the fuel hedging policy, agreed with the National Transport Authority.

ClÉ Group has a central approach to fuel purchase and management with Group-wide fuel procurement administered by Irish Rail, therefore the timeline to include rail within the Renewable Transport Fuel (RTFO) Obligation will potentially impact the fuel procurement process for the ClÉ Group as a whole.

Bus Éireann and Bus Átha Cliath have a decarbonisation pathway for their urban bus fleets, which can be transitioned to zero-emission vehicles (ZEVs) with relative ease. However, 70% of Bus Éireann's fleet is comprised of PSO, Commercial and Schools coaches which currently have fewer zero emissions market options available and are more challenging to transition to ZEVs. Irish Rail in partnership with the NTA is purchasing electric and battery electric carriages which will increase the size if of the rail fleet, however, diesel-powered train carriages will continue to operate. As an interim

measure, the introduction of greater blend rates or the use of 100% advanced biofuel such as HVO can help abate emissions associated with these fleets until the train, coach, and bus fleets are entirely transitioned to ZEVs.

ClÉ Group is investigating the potential use of Hydrotreated Vegetable Oil (HVO) across the fleets. HVO does not have the same technical barriers to engine performance as FAME-based biofuel and may facilitate higher blend rates. HVO typically has a higher cost than diesel fuel or biodiesel, which may impact the rate at which ClÉ Group can increase the use of biofuel due to the high volume of diesel consumed across the Group. For context, ClÉ Group consumed approximately 96 million litres of diesel fuel in 2022.

CIÉ Group would support the use of policy mechanisms to incentivise availability of HVO in the Irish market and lower the purchase cost. This would facilitate the opportunity to integrate HVO across the bus and rail fleets, without compromising engine performance. Policy options could include ringfencing a specified amount of HVO for use by transport as well as state aid for the purchase of large volumes of HVO.

#### Renewable Electricity – in Road and Rail Transport

**Proposed action:** Following consultation and review, it is intended that electricity used for transport would not be included in the RTFO.

**Observations sought:** Do you agree that existing supports for cross-sector renewable electricity supply are sufficient to incentivise renewable electricity in transport consumption? If you agree, do you think that there is merit in reviewing this position again in 2025 or a later date?

#### **CIÉ Group Observations:**

ClÉ is researching how to deploy, operate, and maintain a zero emissions fleet on a national level as part of our commitment to reduce our carbon emissions. The current strategy to transition the Group fleets relies primarily on battery electric vehicle (BEV) technology to replace fossil fuels, however, a key consideration will be the modelling of the expected electricity demands of the growing electric bus fleet and whether Ireland's grid system will have the capacity to support the charging requirements of the future electrified fleet.

As the transport sector shifts towards BEVs and becomes a major electricity user, the demands on Ireland's grid system will surge, putting pressure on the system. The inclusion of renewable electricity in the RTFO would create an additional incentive for large electricity users in the transport sector to source renewable electricity on top of their demand on the grid. Renewable energy initiatives such as the addition of solar PV panels for vehicle charging and large scale corporate power purchase agreements would be supported through their inclusion in the RTFO as any renewable electricity

credits would contribute to long term cost savings (by decreasing the buy-out obligation) and support the business cases for these large scale projects.

CIÉ Group would support further review of the RTFO system; for example, in the Netherlands, the RTFO certificates have been extended to investors in large scale EV infrastructure development. The focus of RTFO policy should be on a planned withdrawal from conventional fuels with tailpipe emissions and overall prioritisation of zero tailpipe emissions technology.

CIÉ Group raises the possibility of addressing exclusive renewable electricity additionality to the grid within corporate PPA and allowing this green electricity to be reported in the future as emissions-free energy use via the SEAI M&R system despite the fact that the electricity is supplied through the grid and not via direct wire. CIÉ Group is examining the potential for corporate PPA options for electricity consumption, however, the PPA contract lengths are typically longer than the shorter PSO contract award framework with the NTA.

ClÉ Group recommends that this position be reviewed again in the future to ensure that existing supports for cross-sector renewable electricity are being used to the maximum extent and creating a significant impact on lowering the sector's carbon emissions.

# Section 2: RTFO rate, targets, and limits

#### The RTFO Rate

**Proposed action:** the RTFO rate is projected to be increased by 4.5 percentage points (from the current 16.5 to 21%) by energy for the obligation period 2024; and 4 percentage points (from 21% to 25%) by energy for the obligation period 2025; and in 2024 a further review and consultation is to be carried out on the indicative annual trajectory of increase in the RTFO rate 2026-2030.

#### **Observations sought:**

Given the proposed trajectory of increase in the RTFO to meet ambitious biofuel blending targets in the climate action plan, what steps can be taken within this policy to avoid future biofuel lock-in?

What safeguards and mitigation could be included, within this policy or related Government policy, against possible socio-economic and distributional impacts, to ensure just transition?

#### **CIÉ Group Observations:**

Biofuels can act as a useful low-carbon bridging energy source between fossil fuels and electricity and/or hydrogen, however, it is imperative that a long-term view be taken to avoid biofuel-lock in and persistent carbon emissions trend.

While biofuels present an alternative option to fossil fuels across bus and rail transport, there are several disadvantages when compared to RFNBOs such as green hydrogen. There is a negligible difference in tailpipe emissions (CO2, NOx, CO) produced by vehicles running on biofuels versus diesel fuel. The benefit of biofuels relies on carbon emissions reduction located upstream in the fuel production and distribution processes, however, this part of the supply chain is often opaque and not easily subject to independent verification as would be with indigenously produced green hydrogen. Additionally, the carbon emissions associated with the transport of biofuels to Ireland (often from producers located as far as China) would be virtually eliminated in sectors that made the switch to hydrogen fuel.

Government policy can prevent future biofuel lock-in by ensuring the build out of green hydrogen production is supported upstream of the pump to reflect an equivalent or better price point than diesel at the pump. This support would build confidence among end users in adopting hydrogen as a viable complimentary alternative to diesel, in addition to battery electric technology. As scale increases and production costs level out, those supports could be gradually phased out over time.

Similarly, with electricity and any other emerging zero emissions fuels, supports to reflect the price point at mass scale to the consumer should form part of the policy to encourage uptake of zero emissions transport. The added benefits of not having to apply for a rebate would act as an additional incentive to end users to transition to zero emission technology.

For any other alternative fuels that produce a level of tailpipe emissions, supports would be preferable as a rebate after the pump, to discourage long term lock-in and encourage the transition to zero emissions.

ClÉ Group also raises the question of a fuel rebate. For clear diesel, there is a fuel rebate per quarter from the Revenue Commissioners. The rebate is currently capped due to fuel price but had previously provided a large offset on cost. ClÉ Group would benefit from clarification on whether there be any such rebate on biofuels or other alternative fuels.

#### Advanced Biofuel Obligation

**Proposed action:** the advanced biofuel obligation rate is to be increased by at least one percentage point (from 0.3% currently to 1.0%) by energy for the obligation period 2024; and by at least 0.5 percentage points (from 1.0% to 1.5%) by energy for the obligation period 2025; and in 2024 a further review and consultation is to be carried out on the indicative annual trajectory of increase in the advanced biofuel rate 2026-2030.

**Observations sought:** Do you agree with the proposal for a higher national advanced biofuel obligation rate, beyond EU requirements?

What should the Department consider in setting the advanced biofuel obligation rate, including social, economic, and environmental impacts?

#### **CIÉ Group Observations:**

With the upcoming inclusion of rail in the Biofuel Obligation Scheme (BOS) and the planned increases in the blend rates up to 20% by 2030, the challenge for CIÉ Group to meet the obligation increases in complexity. The use of B20 compared to B7 presents a significant technical challenge and has implications for engine performance and engine maintenance, particularly on older engine types. Bus engine manufacturers recommend the use of 100% HVO use over the use of biofuel blends higher than B7. Higher blends are not supported under engine warranties by some bus manufacturers. The use of B20 by CIÉ Group would therefore need to be preceded by additional technical trials and assurances from engine manufacturers to ensure compatibility with the fleets.

Biofuels such as HVO can be blended with diesel at much higher blend rates and provide a reliable pathway to meet the increased obligation rates. However, at present HVO is not being widely blended and its higher cost of purchase an additional challenge in procuring HVO for use in the high volumes that CIÉ Group would require.

The use of Annex IX of REDII biofuels that will receive double credits under the BOS will be essential for CIÉ Group to meet the blending rate obligations. These products are more expensive, but with the inclusion of rail in the BOS, the use of these biofuels will be essential to meeting the 14% and rising obligatory blend rate.

CIÉ Group would support the use of policy mechanisms to make HVO a more available and financial competitive fuel option as there is a greater opportunity to integrate HVO across the bus and rail fleets without compromising engine performance. Incentivisation mechanisms for the indigenous production of HVO would help address supply limitations and supply chain sustainability concerns, allowing for wider adoption of HVO across CIÉ Group and the nationwide PSO and commercial HGV fleets.

Government support for making HVO and HVO blends more widely available and financially competitive for all HGV fleet operators is key to helping achieve Ireland's CAP targets of reducing transport emissions by 50% by 2030. HVO can be used with existing fuelling infrastructure with low levels of disruption and Capex required for the transition. This would serve as an interim solution until widespread charging infrastructure and/or green hydrogen refuelling solutions can be introduced across the country.

ClÉ Group also raises the question of how emissions from HVO will be calculated and managed in the future.

#### Renewable Fuels of Non-Biological Origin (RFNBO)

**Proposed action:** Subject to adoption of the amendments to the EU Renewable Energy Directive, introduction of a sub-target obligation for supply of RFNBO in 2025, including an appropriate buy-out charge, subject to consultation and establishment of the necessary delegate acts.

**Observations sought:** What should be the key considerations – social, economic, and environmental, in establishing in 2025 a sub-target for RFNBO and associated buy-out?

#### **CIÉ Group Observations:**

The long term outlook of CIÉ Group is to transition our bus and rail fleets to zero tailpipe emissions vehicles charged or fuelled by renewable energy. CIÉ Group considers the use of RFNBOs, particularly green hydrogen, as a feasible option in combination with BEVs to transition to a zero emissions fleet. Road transport, including public transport, is a hard to abate sector for which hydrogen fuel cell electric vehicles (FCEVs) are advantageous in their greater range of travel and faster refuelling times, particularly for heavy duty trucks, coaches and buses.

The use of indigenously produced green hydrogen as a zero lifecycle emissions fuel for vehicles would practically eliminate greenhouse gas emissions, improve air quality and reduce dependency on imported fuel. In Bus Éireann's largely coach-based fleet and in other high mileage road transport applications, hydrogen has the potential to become the predominant fuel for Bus Éireann and other commuter, regional and long distance operators. In contrast, for the exclusively urban bus fleet of Bus Átha Cliath, battery electric is more likely to prevail but there may also be some potential requirement for hydrogen in the future.

CIÉ Group supports policy options for incentivising the development of hydrogen production and supply chains, including the establishment of ambitious targets for hydrogen and RFNBO usage and the introduction of funding mechanisms to offset the cost of introducing new technologies and make them more affordable for end-users. Short-term incentives towards the cost of green hydrogen and other RFNBOs would allow uptake of vehicles and establish a base for hydrogen production. Policy must support the affordability of hydrogen fuel as the market price of hydrogen makes it cost-prohibitive to many potential users, and more hydrogen uptake will be encouraged as the cost becomes more affordable.

This would align with wider EU policy, as the European Commission is promoting investment in sustainable hydrogen production through the recently established European Hydrogen Bank. The EU has also set targets of 10 million tonnes of domestic renewable hydrogen production and 10 million tonnes of renewable hydrogen imports by 2030 under the European Hydrogen Strategy and the REPowerEU Plan. In autumn the European Commission will launch an auction and commit an initial €800m to support renewable hydrogen production within the EU, offering auction winners a fixed

premium for renewable hydrogen produced over the next ten years, in order to cover the extra cost for consumers in buying renewable hydrogen instead of non-renewable hydrogen or natural gas.

Ultimately the supports should incentivise hydrogen producers to generally position long term mass scale commercial prices at a consumer price point well below the current equivalent diesel/petrol price but biased as close to electricity charging price as possible to allowing for renewable electricity production costs, which will achieve economies of scale in hydrogen production cost and margin. Subsidy schemes can be introduced to support the development of hydrogen infrastructure in depots, including standards around depot design, safety requirements, and additional maintenance costs.

Hydrogen from renewable energy has additional benefits in that it is an indigenous, sustainable transport fuel that allows for decarbonisation in a range of difficult to decarbonise transport and industry applications, as well as having an existing demand in light industry areas. It is also a reliable form of renewable energy storage and can act as a buffer to supply shortages from interconnectors through the UK and ensure supply is available when capacity needs to be met, reducing the dependency on imported energy.

# Section 3: Supporting compliance

#### EU Greenhouse Gas Intensity Reduction Target

**Proposed Action:** Subject to the adoption of the EU revision of the Renewable Energy Directive, expected in 2023, to consider implementing any necessary changes to the RTFO and the RTFO rate in 2025, including consideration of new greenhouse gas intensity targets and compliance enforcement that is proportionate and dissuasive.

#### **Observations sought:**

Would overall compliance be better achieved if the renewable transport fuel obligation were solely based upon a greenhouse gas intensity reduction rather than the current renewable energy obligation?

Would you agree with introduction of a greenhouse gas intensity reduction basis for the 2025 obligation period?

#### **CIÉ Group Observations:**

ClÉ Group has set a carbon emissions reduction of 51% by 2030, aligned with the Climate Action Plan (CAP) 2023. Adopting the use of low-carbon alternative fuels in our fleets would contribute to ClÉ Group meeting our carbon emissions reduction target as well as for Ireland to meet the CAP emissions targets for 2030 and beyond.

The purpose of increasing the share of renewable fuels in the transport sector is ultimately to lower overall greenhouse gas emissions and meet the climate targets

enshrined in EU and Irish legislature. By evaluating transport fuels based on their carbon intensity, this would help prioritise lower-carbon fuels and more directly contribute to the decarbonisation of the transport industry.

ClÉ Group would support the introduction of a greenhouse gas intensity reduction basis for the 2025 obligation period along with the necessary policy mechanisms to financially support the adoption of lower carbon intensity fuels.

# Section 4. Ongoing review of evidence and research supporting the Policy

#### **Proposed Actions:**

The Department in 2023 will establish a working group to progress further examination and research building on the conclusion of the Biofuel Study Report 2022 to address the challenge of achievement of EU renewable energy obligations and ambitious domestic targets for biofuels. This would include the contribution of advanced biofuels, RFNBOs and potential renewable electricity, in future road, aviation and maritime transport consumption, considering research and analysis in Europe, the UK and beyond as recommended in the Biofuel Study Report 2022.

In collaboration with the NORA, the Department in 2023 will review the indicators for ongoing assessment of impacts of changes to the RTFO as proposed in this policy statement, considering possible socio-economic and distributional impacts.

#### **Observations sought:**

Concerning the proposal for a working group to progress further examination and research, addressing the policy challenge of EU obligations and domestic targets:

Do you agree with this approach in addressing the conclusion in the Biofuel study? If so, what are your views concerning the scope of the examination and research needed? In addition to the policy indicators, evidence and research identified in this policy statement, are there other evidence-based inputs which need to be considered to support future policy development and implementation?

#### **CIÉ Group Observations:**

ClÉ Group supports the establishment of a renewable transport fuel working group to ensure viewpoints are captured from a variety of sources across the transport and fuel production sectors.

Any policy mechanisms designed to support the aims of the BOS and increasing the share of sustainable road transport fuels would benefit from taking a long-term view of the transport system as a whole and how the use of biofuels, RFNBOs, and electricity should be used in tandem to achieve a 50% reduction in carbon emissions by 2030, as per the transport sector CAP targets.

CIÉ Group supports the further review of RFNBOs, particularly green hydrogen, and the benefits that it can bring to the transport sector – including 100% zero emissions fuel, acting as a storage vehicle for intermittent renewable energy generation, creating a demand for indigenous production, reducing dependency on imported fossil fuels and associated supply side shocks and price fluctuation, easing demand on the electrical grid, and allowing for decarbonisation in a range of difficult to decarbonise transport and industry applications.



## **Consultation Draft Renewable Transport Fuel Policy 2023-2025**

March 2023



## **Contents:**

# INTRODUCTION POLICY CONTEXT RENEWABLE TRANSPORT FUEL OBLIGATION (RTFO)

### **SECTION 1: REVIEW OF THE RTFO SCOPE**

- I. Rail Transport
- II. Renewable electricity in road and rail transport
- III. Aviation & Maritime Fuels
- IV. Non-Road Mobile Machinery

### **SECTION 2: RTFO RATE, TARGETS, AND LIMITS**

- I. The RTFO Rate
- II. E10 Mandate
- III. Advanced Biofuel Obligation
- IV. Renewable Fuels of Non-Biological Origin (RFNBO)
- V. Additional Certificates to Incentivise Certain Renewable Transport Fuel (RTF) Supply

#### **SECTION 3: SUPPORTING COMPLIANCE**

- I. EU Greenhouse Gas (GHG) Intensity Reduction Target
- II. Sustainability and GHG Criteria Compliance European (EU) Database & Supervision of Certified Bodies
- III. Safeguarding Against Risk of Fraud and Other Indirect Effects
- IV. High Indirect Land Use Change (ILUC) risk

## SECTION 4: ONGOING REVIEW OF EVIDENCE AND RESEARCH SUPPORTING THE POLICY

## **Introduction**

This draft policy statement concerns the supply of renewable transport fuels (RTF) and the proposed actions over the next two years concerning the renewable transport fuel obligation (RTFO) to achieving greater renewable energy in transport in line with European requirements and national climate action objectives.

It is intended to provide policy certainty for relevant economic operators and stakeholders who are central to the delivery of emission reduction targets in the transport sector.

## **Policy Context**

To achieve a 50% reduction in Carbon emissions in the transport sector by 2030 the Climate Action Plan (CAP) sets out a range of measures, including increasing sustainable mobility, public and active travel, electrification of road transport and increased biofuels in transport as a transition measure.

The CAP biofuel target is for at least B20 (biodiesel equivalent) in diesel and E10 (Ethanol) in petrol by 2030 (with an interim B12/E10 by 2025 target). Modelling analysis of the Climate Action Plan target projects a 1.08 MtCO2eq abatement saving by 2030 from this biofuel target (13.7% of the transport sector carbon abatement by 2030)

The CAP also has targets and actions to incentivise greater production, supply, and use of biogas, such as biomethane and green hydrogen, with potential uses across economic sectors including in transport. Among the key considerations for greater use of renewable energy is the appropriate hierarchy of use of renewable transport fuel (RTF) across the different transport and economic sectors.

Acknowledging the cross sectoral and interdependencies of energy policy implementation, engagement at a Departmental and Agency level is ongoing regarding policy coordination, reducing regulatory burden, and learning from best practice.

In 2022 the Department of Transport published the Report of a Biofuel Study which reflects upon the availability and sustainability of biofuels in meeting future demand for consumption in transport. This Study sets out a number of recommendations concerning the RTF policy which are considered in this policy statement concerning next steps for the RTFO.

Policy on biodiversity and air quality, regarding potential risks and impacts for public health, will have ongoing relevance for policy development concerning the increased supply and use of renewable transport fuels both in a European and national context.

The European recast Renewable Energy Directive came into effect in July 2021. The EU Fit for 55 proposals launched in July 2022 are at varying stages of deliberation among Member States, the Commission, and the Parliament. Future targets for emission reduction and renewable energy uptake signaled in these proposals will exceed current targets in the road transport sector and new targets will be established for aviation and maritime sectors.

Similarly, proposed changes in European taxation and energy regulation across the other economic sectors will be relevant to future RTF policy development and implementation here in Ireland.

Research is continuing to support an evidence-based development of policy concerning renewable transport fuels and to support the implementation of the policy measures.

## The Renewable Transport Fuel Obligation (RTFO)

The means to obligate fuel suppliers to supply renewable transport fuels (including biofuels) is the obligation set out under Part 5A of the National Oil Reserves Agency Act 2007.

To implement the measures set out in the Renewable Fuel for Transport Policy 2021-2023, a number of legislative changes<sup>1</sup> have been made to support compliance by economic operators in achieving the RTF policy and regulatory targets and obligations. Among these changes are:

- A new advanced biofuel obligation rate and corresponding buy-out charge
- A cap on the supply of the amount of high-ILUC-risk biofuels permissible under the RTFO scheme at 2019 levels by the companies who supplied them in 2019, and a rate of reduction of this amount to 0% by 2030
- New powers to the National Oil Reserves Agency (NORA) to supervise certification bodies
- An obligation placed on economic operators to supply information to the European Union database which is currently being operationalized
- A minimum % ethanol in petrol specification
- An extension of the Agency powers to grant additional certificates for specified RTFs in petroleum products and in different transport sectors

This Policy Statement will form the basis for actions to be taken over the next two years from 2023 to 2025, based upon a consultation in early 2023. The implementation of the policy will also be consulted upon in 2024.

The following Sections 1-3 of this Policy Statement will indicate the further proposed actions under the RTFO over the coming years.

Section 4 sets out further proposed actions required to develop the evidence-base to support policy implementation and policy.

5

<sup>&</sup>lt;sup>1</sup> S.I. No. 350/2022 - European Union (Renewable Energy) Regulations (2) 2022 S.I. No. 680 of 2022 European Union (Renewable Energy) (Amendment) Regulations 2022 Oil Emergency Contingency and Transfer of renewable Transport Fuel Functions Act No. 2 of 2023

## **Section 1: Review of the RTFO Scope**

Currently the scope of the RTFO relates to road transport fuels in relevant disposals of petroleum products. RTFs supplied in other sectors in transport, such as non-road mobile machinery, aviation or maritime can be eligible for RTFO certificates, but they are not included within the obligation.

As indicated in the Policy Consultation 2022, the merits of extending the scope of the RTFO could be considered further. Among the key benefit would be to further contribute to decarbonisation of the transport sector.

#### **RAIL TRANSPORT**

The transport target for renewable energy in the EU Renewable Energy Directive is the share of RTFs in the final consumption of energy in the road and rail transport sectors. However, Ireland's RTFO as provided for under the 2007 Act concerns only road transport. Subject an amendment to the definition of 'relevant disposals' in the 2007 Act, the scope of the RTFO could be extended to rail transport fuels, mirroring the scope of the EU Renewable Energy Directive.

Irish Rail is the monopoly heavy rail operator in Ireland with a statutory function to provide public transport services in the State. Irish Rail is an RTFO account holder by virtue of supplying diesel for use by Dublin Bus and Bus Éireann.

A B7 blend in diesel has recently been introduced in 2023 for use by CIE (Coras Iompair Eireann) across all its companies' operations – bus and rail, which will contribute towards achieving the RTFO.

The timing of the inclusion of supply for use in rail within the RTFO will have regard to ongoing consideration by the Company concerning the possibility of increasing RTF blending in future years.

It is noted that Irish Rail is also examining the future potential of green hydrogen energy use for certain services. Together with the potential for Hydrogen buses in the short-term, this could be a future means to meet a separate RFNBO sub-target longer term.

**Proposed Action:** With consideration to the initial steps that have been taken by CIE this year at an operational level to comply with the RTFO, and the need for consideration of primary legislation to extend the scope of the definition of 'relevant disposal' for the purpose of the RTFO, the timeline for the proposal to include rail within the RTFO will be extended to 2025.

## Observations sought:

A review to include rail transport fuel within the scope of the RTFO by 2025 is proposed:

What do you think are the key considerations to be considered within this review?

CIRCLE K supports the suggestion that rail transport should be included in the overall RTFO by 2025. The climate action plan has set out targets that will be best achieved with a cumulative effort across all transport sectors. The move by CIE to a B7,

while welcome, will not be enough in order to achieve the full obligation.

Assuming Rail transport wishes to avoid such a buy out then the most likely option will be the use of other biofuels such as HVO.

Do you agree or disagree with the proposed review timeline, and reasons why?

The inclusion of a target for CIE should be implemented as soon as practicable possible without placing onerous and unachievable targets on CIE, which would ultimately end up being borne by consumers. Targets set out should be achievable and scaled over an appropriate timeline, so that CIE can plan appropriately.

#### RENEWABLE ELECTRICITY - IN ROAD AND RAIL TRANSPORT

The EU Renewable Energy Directive allows additional counting for renewable electricity used in road (4 times credit) and rail (1.2 times credit) in transport. For the purposes of the reporting under the EU Renewable Energy Directive, the Sustainable Energy Agency of Ireland (SEAI) estimate the amount of renewable electricity consumed in transport in the State in different sectors.

The electrification of transport through ambitious EV targets in the climate action plan, is a pathway for greater renewable electricity in transport consumption. Supply of electricity in road transport is not obligated nor renewable electricity supply rewarded under the RTFO currently, and the last Policy Statement included an action to examine the possibility of doing so.

Production and supply of renewable electricity for consumption across all economic sectors is already supported through the renewable electricity support scheme (RESS) and public service obligation (PSO) levy, with Climate Action Fund grants for EV purchase and infrastructure supporting increased transport consumption.

Furthermore, it would be challenging to quantify, for the purpose of the RTFO, the transport consumption of renewable electricity through EV charging in private homes (roughly 70% of charging) separate to other household electricity consumption, for consumers without smart electricity meters and related smart services. It is noted that the renewable heating obligation (RHO), which is in development, will not include renewable electricity.

It is likely that extending the RTFO to renewable electricity in transport would serve as additional to existing market-based supports and incentives for renewable electricity for renewable electricity production and supply that would have occurred in transport anyway - including EVs in road transport and electricity supply for rail transport by Irish Rail and LUAS currently, and in the future MetroLink. Electricity is already on a pathway to decarbonisation and is expected to be at least 80% renewable by 2030 under the Climate Action Plan.

In the Netherlands, there is a model whereby RTFO certificate/credit has been extended specifically to benefit investors in large scale EV infrastructure development, whereby the credit can be traded with obligated RTFO/fuels suppliers. If implemented in Ireland, this could have benefit for EV infrastructure investment (relating to roughly 30% of charging), but would displace biofuel blending activity, and would result in the RTFO rate having to be increased further to offset the biofuel blending displacement.

No Further Action is proposed.

## Observations sought:

Following consultation and review, it is intended that electricity used for transport would not be included in the RTFO:

Do you agree that existing supports for cross-sector renewable electricity supply are sufficient to incentivise renewable electricity in transport consumption?

Circle K believe that there are additional supports that can be implemented to incentivize a greater take up of EV adoption and ultimately more renewable electricity being used in the transport sector.

As a CPO Circle K will invest heavily in the coming years in the development of an ultra-high-speed charging network. It's widely acknowledged by government and government bodies (such as ZEVI) that high speed on the go charging is a key pillar in the adoption of EV's amongst consumers.

As a CPO Circle K are already charging vehicles with renewable electricity and the volumes supplied are readily quantifiable. However, at present there is no way for Circle K to generate RTFC's from the power we supply via the infrastructure that we develop. In other parts of Europe where we operate, CPO's benefit from electricity provided and it contributes towards the RTFO, or its equivalent.

The generation of RTFC's has the potential to improve the economic values of these assets, and both increase the deployment as well as allow deployment in areas that might not be viable in the current RTFO scenario.

There is currently minimal, to no supports, available for forecourt CPO's to invest in the high speed infrastructure required. The current PSO model punishes investment in this infrastructure as it sets a high barrier operational cost on infrastructure.

The challenge is that whilst requiring large amounts of power to satisfy the purpose of ultra-fast charging, this requires high import capacity which in turn attracts a higher PSO levy. Changes to this PSO model for high-speed infrastructure will serve to allow for a faster expansion of high-speed charging infrastructure.

To date the roll out of EV infrastructure has been largely dependent on a semi state company. Whilst this was necessary as the sector grows from early adoption phase, there has been considerable supports given, as recently as 2018, via the climate action fund to this semi state company. This fund was not open to commercial CPO's at this time, despite the fact that EV sales were starting to gain double digit year on year growth.

Going forward commercial CPO's will be critical in the roll out of this infrastructure and any funding must be available on a more equitable basis.

If you agree, do you think that there is merit in reviewing this position again in 2025 or a later date?

If the EV sector hits its targeted vehicle penetration planned, then it should be reviewed as soon as possible as part of the RTFO, however it should only be included once a robust process is in place to meet the obligation through correct and accurate access to data confirming volumes supplied, and verified, to road transport vehicles.

Do you think that models such as in the Netherlands should be explored further for the benefits for electrification of transport?

Yes – No model should be ruled in or out without due consideration being given. Key to the successful delivery of any model is to ensure that the targets set out are achievable and scaled over an appropriate timeline, so that industries and supply chains can plan appropriately.

#### **AVIATION AND MARITIME FUELS**

Under the EU Fit for 55 package of legislative proposals, there are two impacting directly on the decarbonisation of fuels used. Both the so-called "Refuel EU" for Aviation and "Fuel EU" for Maritime regulations will have direct effect, and the details are subject to negotiation at a European level.

In the Fuel EU Maritime regulation, there is an obligation on shipping companies concerning: 1) a GHG reduction target on energy produced on board ships (2% in 2025, rising to 75% in 2050) and 2) an onshore power (OPS) requirement, which will tie in with proposed EU Alternative Fuel Infrastructure Regulation obligations on Member States.

In the ReFuel EU Aviation proposal, there is an obligation on fuel suppliers to ensure that all aviation jet kerosene made available contains a minimum mandated level of SAF (minimum 2% in 2025 rising to 63% in 2050, and a 0.7% RFNBO sub-target in 2030 rising to 28% in 2050). The proposal also provides for a transitional period, commencing from 1 January 2025, during which, for each reporting period (annual), an aviation fuel supplier may supply the minimum mandated share of sustainable aviation fuel (SAF) as a weighted average over all the aviation fuel it supplied across Union airports for that reporting period.

Currently the RTFO provides for RTFO certificates to be granted for supply of RTF in aviation and maritime fuels, to incentivise supply of RTF in these transport sectors.

Stakeholder responses to the Policy Consultation in 2022 suggested that any mandate for supply of advanced or development renewable fuels, e.g., for use in these marine and aviation sectors, alone would have little impact on their supply if there is low or no availability of these fuels and their feedstocks. This may point to a need for support or incentives targeting production of these RTFs, which is outside the scope of the RTFO.

**Proposed Action:** To review the demand and supply of SAF and RTF in maritime fuel within the context of RTFO certificates issued or the draft regulations for additional RTFO certificates, as part of the evidence base for any future policy consideration within the context of implementing future EU Regulations.

## **Observations sought:**

What incentives would you like to see for supply of renewable transport fuels in aviation and maritime fuels?

All types of SAF need to be considered as part of RTFO obligations. However, in doing this due consideration should be given to ensure biofuels that are best used in the road sector are not used in the aviation sector.

As an example feedstocks diverted to SAF may be better used in displacing diesel emissions, as displacing diesel has potential for much higher carbon savings.

What do you see as the key challenges or enablers to incentivise the supply of renewable transport fuels in aviation and maritime sectors?

The key to successful delivery of savings in all sectors, including aviation and maritime, is to ensure that targets set are achievable and scaled over an appropriate timeline.

Policy for change in these areas needs to be in place, significantly in advance of required obligations, allowing these sectors and the relevant supply chains time to provide suitable solutions, in the most appropriate and economic way possible, so that all can plan appropriately, building a much more solid base for a successful transition to meet future regulation.

### **NON-ROAD MOBILE MACHINERY**

Currently the relevant disposals for the purpose of the RTFO relates to road transport fuel only, and non-road mobile machinery (NRMM) is outside the scope of the RTFO.

However, biofuels blended with gas oil, or in liquified petroleum gas (LPG), which is used in NRMM are eligible for RTFO certificates, as they both fall within the definition of a renewable transport fuel.

The gas oil market is roughly the same scale as the petrol market, i.e., about 1 million litres per year, in the State. It is estimated by the NORA that to apply the RTFO to gasoil used for transport purposes could yield a 0.9MT CO2eq abatement between now and 2030.

To implement these carbon reduction benefits through the RTFO, the scope of the obligation and the definition of relevant disposals would need to be expanded to include NRMM. Applying the full RTFO rate would achieve the possible carbon reduction benefits estimated above. Alternatively, a lower percentage contribution NRMM toward the RTFO rate would achieve part of this carbon reduction benefit.

While there are benefits from a climate perspective, consideration is also required as to the impacts or consequences within in the economic sectors using NRMM. The balance needs to be assessed between the benefits of carbon reduction lost against the impact on consumers of gasoil and users of NRMM, in terms of price impacts.

The ambitious targets for anaerobic digestion biomethane production under the climate action plan are also noted in this context along with future potential for NRMM to be powered by these alternative energy sources.

**Proposed Action:** Further consideration is to be given to inclusion of the category of NRMM in the scope of the RTFO, in the context of decarbonising hard to abate sectors, and the timeframe of implementing emission ceilings within the second carbon budget, which commences in 2026.

## **Observations sought**

Do you agree with the inclusion of non-road mobile machinery (NRMM) within the RTFO?

The decarbonization of all fossil fuels is required to help meet carbon reduction targets, as such Circle K agree that NMMR should be included as part of the RTFO.

If this were introduced as a reduced RTFO rate initially what contribution would be appropriate – 75%, 50%, 25% or other?

The key challenge here is to ensure that any, and all savings were applicable across the entire RTFO are not included as a sub sectoral target.

In your view what should be the key considerations for this policy proposal?

Circle K believe that policy will need to consider the product quality aspects of biofuels used in NRMM sector. Obligated parties will not have supply chain oversight of storage of fuels, and as such HVO is likely to be the fuel of choice used in meeting this obligation.

Again policy for change in this area needs to be in place, significantly in advance of required obligations, allowing this sector and the relevant supply chains time to provide suitable solutions, in the most appropriate way possible, so that all

## can plan appropriately.

Further clarification of related policies is required in this area, for example taxation rates in relation to NRMM biofuels, the inclusion of dyes when replacing gas oils etc. Current policy in some of these areas promotes the use of fossil products, over their equivalent biofuel alternatives.

What is the appropriate balance of impacts including social, economic, and environmental considerations?

## Section 2: RTFO rate, targets, and limits

### THE RTFO RATE

From 2023 the RTFO rate is expressed in energy terms, rather than in volume terms, previously.

In line with meeting Climate Action Plan targets and EU Fuel Quality Directive requirements (see next section), in 2022 the RTFO rate was increased from 12% to 15% by volume as a % of road fossil fuel. In January 2023, the RTFO rate was further increased to approximately 17% by energy (as a % of road fossil fuel)

In 2022, approximately 307m litres (9.6 PJ) of liquid biofuels and 0.04 PJ of gaseous fuels were placed on the market, which was an increase from 246m litres (7.6 PJ) of liquid biofuels and 618k Nm3 (0.2 PJ) of gaseous fuels in 2021.

The Biofuels Study Report 2022 estimates 72-78m litres of bioethanol and between 570-730m litres of biodiesel/HVO could be required to meet the Climate Action Plan transport targets by 2030.

In line the Climate Action Plan targets, which are broadly supported by stakeholder responses in the Policy Consultation 2022, it is proposed to increase the RTFO rate annually. The last Policy Statement set out an indicative projected trajectory for annual increases in the RTFO to 2025, and up to an estimated 38% by energy rate from 2030.

The trajectory to 2025 has been reviewed and adjusted, supported by analysis by the NORA RTFO Team considering actual supply to date and the impact of actual and planned changes in the contributory elements within the RTFO.

The trajectory of increase of the RTFO annually to 2030 as a % of road fossil fuel is set out in the table below. While the projected figures appear high this reflects the assumptions being made on potential for 15% disposal using certificates from previous years, and multipliers that will be applied to actual volumes placed on the market. The underlying assumption remains as an E10/B20 blend.

	2024	2025	2026	2027	2028	2029	2030
RTFO	21%	25%	29%	34%	39%	44%	49%

The RTFO is expressed as a percentage of road diesel and gasoline and is set at a level that is forecast to achieve both domestic targets (E10 & B20) and EU requirements. The above penetration of renewable fuels in the transport market is estimated to deliver over 1  $MtCO_{2eq}$  emission savings in 2030.

Transport sector modelling is complex, and several assumptions are relied upon when forecasting the RTFO. For example, the diesel - gasoline mix, the rate of double counting and additional counting, the feedstock mix, etc. The further into the future the model forecasts, the more uncertain the results become. To account for this and potential changes in the market, the trajectory should be updated annually.

**Proposed Action:** the RTFO rate is projected to be increased by 4.5 percentage points (from the current 16.5 to 21%) by energy for the obligation period 2024; and 4 percentage points (from 21% to 25%) by energy for the obligation period 2025, subject to statutory consultation on draft regulations; and in 2024 a further review and consultation is to be carried out on the indicative annual trajectory of increase in the RTFO rate 2026-2030.

## Observations sought:

Given the proposed trajectory of increase in the RTFO to meet ambitious biofuel blending targets in the climate action plan, what steps can be taken within this policy to avoid future biofuel lock-in?

Circle K have always engaged positively with the RTFO. Our key goals is in the achievement of the targets at the minimal cost to the end consumer.

From our perspective clarity is key in minimizing the costs and maximizing the clarity and planning around multiyear targets. Since 2020 the department has missed updates and closed consultations on days when the consultation was not given time for further consideration (e.g. 31/12/2021). This has meant obligated parties have operated based on best endeavors to meet targets that are not clarified until the last minute.

The low point of this recent engagement came in April of this year when despite guarantees by the department that proposals they had advised would be adopted, they were changed three months into the obligation period. This was at the end of ~24 months of confirming their intentions. This has had a significant knock-on effect onto obligated parties, in relation to sourcing, costs and operations.

Into the future it is critical that the department offers realistic timelines on the engagement with industry and if setting out a consultation does so with the spirit of engaging with the consultation parties.

What safeguards and mitigation could be included, within this policy or related Government policy, against possible socio-economic and distributional impacts, to ensure just transition?

From a commercial perspective, the adoption of HVO should be considered as part any transition towards BIOFUELS. HVO provides an immediate solution to commercial transport. At present HVO used in transport does not qualify for any rebates, in essence promoting fossil fuels over their lower carbon alternatives, and this has the potential to inhibit the adoption of this low carbon fuel. Further clarification of such factors needs urgent attention.

## **E10 MANDATE**

To incentivize E10 supply in the Irish market, the legal provision in Section 11 of the Oil Emergency Contingency and Transfer of Renewable Fuel Function Act 2023 provides for establishment of a minimum percentage ethanol in petrol placed on the market in the State, which can be reviewed and adjusted over time.

The conclusion from the Policy Consultation in 2022 was to ensure the right level of ambition was maintained in the policy on renewable transport fuels, requiring ongoing review.

The Biofuel Study Report 2022 recommends an examination of the possibility of increasing bioethanol rates

It is understood that some other countries have a higher minimum requirement for ethanol in petrol, for

example the Netherlands has an 8.5% biofuel requirement in petrol with a 7.5% minimum blend of ethanol and is seeing actual ethanol supply of up to and over 10% blended in petrol.

Therefore, the minimum percentage which will be specified in Regulations for the 2023 obligation period will also be kept under review to ensure that the actual supply of ethanol achieves Climate Action Plan target of E10 by 2025, while maintaining a crop-based biofuel contribution in Ireland's RTF supply within the EU Renewable Energy Directive limit of 2%.

**Proposed Action:** A review of the effectiveness of the 5.5% minimum percentage ethanol in petrol measure in meeting the CAP target with a view to adjusting the specification upwards by 2025, subject to consultation on draft regulations.

## **Observations sought:**

To ensure achievement of the climate action plan target of E10 by 2025, it is proposed to keep under review the supply of ethanol, with a view to possible increase in the minimum percentage ethanol in petrol by regulation in 2025:

Do you agree or disagree with this approach? And why?

Any obligated party operating under the RTFO should be able to meet the obligation via whatever is the optimal option.

Obligated parties are operating in the biofuels trading market and understand the dynamics some of which can change from one year to the next. If the ultimate aim of the RTFO is increase adoption of BIOFUELS and decarbonize transport, then it should be up to the experts in the market to decide how best to meet this obligation.

One matter that requires consideration is in relation to change in fuel compatibility with certain vehicles, with increases in

ethanol levels. The Department need to take a leading role in the education of consumers where this would be the case.

#### ADVANCED BIOFUEL OBLIGATION

In line with the targets for advanced biofuels supply set out in EU Renewable Energy Directive an advanced biofuel obligation rate was established in 2023 at 0.3% by energy, to incentivise the supply of biofuels from feedstocks listed in Annex IX Part A.

Also established in the 2023 obligation period is an advanced biofuel buy-out charge of €0.08 per/MJ shortfall and provision has been made that in future years 15% of the advanced biofuel obligation can be met with RTFO certificates obtained for supply of advanced biofuels in prior years.

EU targets for supply of advanced biofuel share of renewable energy in transport consumption are at least 1% in 2025 and 3.5% in 2030. To meet these requirements, the indicative rate of increase of the advanced biofuel obligation is set out in the following table.

The trajectory of increase of the advanced biofuel obligation annually as a % of gasoline and diesel supplied in the road transport market (other fossil fuels are LPG and CNG) is set out in the table below. Again, the projected figures appear high reflecting the assumptions being made on potential for 15% disposal using certificates from previous years, and multipliers that will be applied to actual volumes placed on the market.

	2023	2024	2025	2026	2027	2028	2029	2030
ABO	0.3%	1.0%	1.5%	2.4%	3.4%	4.7%	6.2%	7.9%

As for the RFTO rate projections, considering many assumption and variables underpinning modelling forecasts, the trajectory should be updated annually.

Increase in the advanced biofuel sub-target by 2030 has yet to be agreed in the proposals for revision of the European Renewable Energy Directive and could be 1% in 2025 and as high as 4.4% in 2030 (as expressed in the Renewable Energy Directive).

Incentivizing the production and supply of advanced biofuels and relevant feedstocks may involve increasing the advanced biofuel obligation to higher rates than the EU requirement and setting the penalty (buy-out) for missing the target at a level more than the average EU penalty price.

It is clear from the Policy Consultation 2022 that, while there is support for increasing the advanced biofuel supply, there is also concern that targets and demand incentives move too quickly ahead of available production and supply of these advanced biofuels and feedstocks

**Proposed Action:** the advanced biofuel obligation rate is to be increased by at least one percentage point (from 0.3% currently to 1.0%) by energy for the obligation period 2024; and by at least 0.5 percentage points (from 1.0% to 1.5%) by energy for the obligation period 2025, subject to consultation on draft regulations; and in 2024 a further review and consultation is to be carried out on the indicative annual trajectory of increase in the advanced biofuel rate 2026-2030.

#### **Observations sought:**

Do you agree with the proposal for a higher national advanced biofuel obligation rate, beyond EU requirements?

CIRCLE K does not see any benefit in setting this target higher than the European mandates. In addition, any obligation %'s set should be done with a view to the volumes and grades available for meeting this obligation (Grades listed under Annex IXA).

What should the Department consider in setting the advanced biofuel obligation rate, including social, economic, and environmental impacts?

Key to the implementation and successful adoption of any RTF is to achieve the target at the minimal cost to the consumer. This can be assisted by clear and reasonable timelines to implement the subcategory changes, but also only doing so when there is a substantial supply chain of product that ensures targets are achievable and do not simply become a fine levied on the industry under the guise if environmental targets.

## RENEWABLE FUELS OF NON-BIOLOGICAL ORIGIN (RFNBO)

The proposals for targets in the EU Renewable Energy Directive under the proposed EU Fit for 55 sets out a sub-target for supply of renewable fuels of non-biological origin (RFNBO) in the transport sector of a binding 1.5% target by 2030 complemented by a non-binding target of 5.2%.

This could be implemented by a percentage contribution for RFNBO being established within the RTFO rate in 2025, with a corresponding buy-out charge. This will require an amendment to the RTFO rate provisions of the 2007 Act, to implement the proposed EU Renewable Energy Directive requirement.

The Biofuel Study recommends further examination of the potential availability and supply of RFNBO and recycled carbon fuels (RCFs).

**Proposed Action:** Subject to adoption of the amendments to the EU Renewable Energy Directive, introduction of a sub-target obligation for supply of RFNBO in 2025, including an appropriate buy-out charge, subject to consultation and establishment of the necessary delegate acts. Further research and consultation to be carried out as to the projected availability and projected annual increase in the RFNBO contribution rate required in the years from 2025 to 2030.

## Observations sought:

What should be the key considerations – social, economic, and environmental, in establishing in 2025 a sub- target for renewable fuels of non-biological origin (RFNBO) and associated buy-out?

Circle K agrees that sub sectoral targets should be introduced in time for RFNBO's. However any decision on this should be done in consideration of other co-dependent strategies that will serve to generate RFNBO's. Based on the current lack of clarity we do not believe any sub sectoral targets should be set.

### ADDITIONAL CERTIFICATES TO INCENTIVISE CERTAIN RTF SUPPLY

From 2023 authorisation has been granted for additional certificates to be granted for supply of specified RTFs, in specified sectors, with the aim of targeted incentivising of supply.

The Regulations and specifications were the subject of extensive consultation with stakeholders and the public, and these can be reviewed and adjusted over time.

**Proposed Action:** The supply in 2023/2024 of the specified fuels, which qualify for additional certificates, will be reviewed against the objective for incentivisation, the rationale for which will also be considered, so that any necessary adjustments can be consulted upon in 2024 and implemented for the 2025 obligation period.

## **Observations sought:**

What considerations should be included in this review – including possible social, economic, and environmental impacts?

Any changes for 2025 must be clearly signaled at least 6 to 8 months prior to the changes being implemented.

Circle K request that any changes made give us the best option to optimize procurement and minimize costs to the end user. The treatment of the most recent introduction of multipliers did not allow any obligated party this luxury as all deadlines were missed and then changes were made last minute despite the communications made during the prior 24 months.

Circle K is fully committed to decarbonization and the introduction of ever-increasing volume of renewable fuels onto the market. In doing this we would ask that the department is fully engaged in consultations and delivering decisions in time to make decisions and not wait to the last minute which has been the case in recent years as changes to the BOS / RTFO have been implemented.

## **Section 3: Supporting compliance.**

### **EU GREENHOUSE GAS INTENSITY REDUCTION TARGET**

Article 7a of the EU Fuel Quality Directive (FQD) requires fuel suppliers, at a minimum, to reach a 6% reduction in lifecycle carbon intensity (lifecycle emission) of fuel supplied to the transport sector, in comparison to a fuel baseline standard. In 2021, in aggregate, suppliers failed to meet the EU FQD target 6%, only achieving 3%. This is currently estimated to be 3.8% in 2022.

It is projected that with planned increases in the RTFO rate, in aggregate, this FQD target may be achieved by end 2024 or in 2025 and in the years after 2025 Ireland will exceed the target.

The 2021 Policy Statement committed to examining possibilities to strengthen compliance enforcement of the EU FQD requirement. For financial penalties to be sufficiently dissuasive they would need to be much higher than currently provided for and may require supporting primary legislation. Such a penalty increase would need to be introduced on a graduated basis over time to avoid any resulting sharp cost impact on consumers through increased pump price.

However, in the absence of the suggested increased FQD penalties, the current gradual process of RTFO rate increase may be a lower impact option for a managed achievement of the FQD target by 2025.

Policy consultation stakeholder responses in 2022 broadly supported the RTFO to achieve this target rather than penalties and fines.

Proposed changes to the EU Renewable Energy Directive currently being negotiated under the EU Fit for 55 could see the establishment of one overarching target for RTF (and low carbon fuels) of at least 13% or higher in GHG emission reduction. This will be kept under review regarding possible impacting changes to the RTFO.

**Proposed Action:** Subject to the adoption of the EU revision of the Renewable Energy Directive, expected in 2023, to consider implementing any necessary changes to the RTFO and the RTFO rate in 2025, including consideration of new greenhouse gas intensity targets and compliance enforcement that is proportionate and dissuasive.

### Observations sought:

Would overall compliance be better achieved if the renewable transport fuel obligation were solely based upon a greenhouse gas intensity reduction rather than the current renewable energy obligation?

Would you agree with introduction of a greenhouse gas intensity reduction basis for the 2025 obligation period?

Circle K could potentially support this as long as flexibility was afforded to obligated parties in achieving the reductions via the most optimal renewable fuels. As per the comment relating to E10 above. We would work to ensure BIOFUELS placed on the market meet the obligation in the most efficient way possible.

## SUSTAINABILITY AND GHG CRITERIA COMPLIANCE - EU DATABASE AND SUPERVISIONS OF CBS

NORA (and SEAI for non-transport renewable energy consumption) will be responsible for supervision of certification bodies conducting audits under voluntary schemes, in cooperation with all other Member States.

In 2023 the European Commission established the Union Database for RTFs, and fuel suppliers are obligated to input information to the EU Database on RTFs supplied.

These new elements in the EU oversight of sustainability and GHG criteria compliance are continuing to be embedded within the compliance oversight system, for all concerned - economic operators, voluntary schemes, certification bodies and Member States' competent authorities.

The Biofuel Study Report 2022 recommends continued progress in implementing these new supervision elements, as key to safeguard against the risks around sustainability of biofuels supply.

**Proposed Action:** The system administrator and Departments will continue to engage at an EU level with the European Commission and with stakeholders to ensure implementation of the EU supervision updates.

## Observations sought:

From your perspective, where does the focus need to be over the next two years concerning the implementation of the EU measures for oversight of sustainability and GHG reduction for renewable energy in transport?

CIRCLE K welcome the governance that this database will bring to compliance in relation to tracking of sustainable feedstocks.

Once this database has been established for a period of time, and confidence has been established with regards to the volumes of Annex IX Part B feedstocks, this should allow for a review of the 1.7% limit placed on these feedstocks. The European Commission indicated that this limit of 1.7% was put in place to target alleged fraud in relation to Used Cooking Oil and Cat 1/2 Tallow. The Union Database should allay those fears and eliminate the potential for fraud.

CIRCLE K believes this should be the focus over the next two years, allowing for the increased use of indigenous waste-based feedstocks.

#### SAFEGUARDING AGAINST RISK OF FRAUD AND OTHER INDIRECT EFFECTS

The Climate Change Advisory Council in its 2022 Annual Review recommended ceasing the current policy of increasing biofuels under the transport sectoral targets of the climate action plan, considering the potential high ILUC-risk impacts of this policy.

The Biofuel Study Report 2022 addresses the concerns of the Council within its findings and recommendations for further work. In particular,

 To study how indirect emissions could arise, further work is needed to examine this in greater detail, considering Ireland's current reliance on UCO and tallow feedstocks

- To examine the indigenous market and potential for deliberate 'downgrading' of category
   3 tallow to category 1, and,
- To Investigate first-hand how fraudulent activity may be carried out.

**Proposed Action:** In 2023 the Department will establish a working group to progress a voluntary vulnerability assessment of the current and projected future biofuels supply into Ireland, with a view to identifying scope for risk of biofuel fraud (leading to high ILUC-risk) and other indirect impacts and making recommendations concerning improvements.

### Observations sought:

Concerning the proposal to establish a working group and a voluntary vulnerability assessment concerning biofuel fraud risk:

Circle K supports any proposal that would ensure safeguards against fraud within the BIOFUELS space. Fraud may not be limited to feedstocks though. Based on current RTFO / NORA proposals regarding multipliers and end use of products there is challenges ahead regarding the end use of BIOFUELS.

Currently in the HVO market, different multipliers apply across end use and clarity and meaningful responses should be available with regards to noncompliance in monitoring and ensuring the correct end use is applied to the product sold and notified to NORA.

CIRCLE K fully agree that an examination of the Tallow market should be undertaken to ensure all parties can have confidence that suppliers to the market do so appropriately.

Do you agree with this approach in addressing the recommendations of the biofuel study? If so, what are your views concerning the scope of the assessment?

Circle K believe all consultation concerns should be listened to. Addressing the climate change advisory council is critical to this.

CIRCLE K fully agree that an examination of the Tallow market should be undertaken to ensure all parties can have confidence that suppliers to the market do so appropriately.

Circle K supports any work that will decrease the ability for suppliers of biofuels to defraud the market.

#### HIGH-ILUC-RISK

Currently the permitted level of supply of high ILUC-risk biofuels is capped as the amount supplied in 2019 by the companies who supplied it unless it is certified as low ILUC-risk.

The volume contribution to the RTFO rate from high ILUC-risk biofuel will be reduced (from the amount supplied in 2019 by the companies who supplied it) to 0% by 2030 in line with the EU Renewable Energy Directive. This provision in the Directive does not apply to biofuels from feedstocks which are certified as low ILUC-risk.

The indicative trajectory of annual reduction of high ILUC-risk biofuels is set out as follows:

	2023	2024	2025	2026	2027	2028	2029	2030
% Of 2019 amount	100	90	75	60	45	30	15	0
Energy that can be sourced from High ILUC feedstock (TJ)	48.96	44	37	29	22	15	7	0

**Proposed Action:** it is the intention to reduce the contribution of high ILUC-risk biofuels to the RTFO commencing in the 2024 obligation period.

## **Observations sought:**

Do you agree with the proposed trajectory of decrease in high ILUC-risk biofuels supply to 2030, as set out in the policy statement?

Should this be reduced annually, or every 2 or 3 years?

Should the reduction to 0% be accelerated, e.g., by 2025 or earlier?

Circle K fully supports the phasing out of High ILUC feedstocks for use in BIOFUELS.

# Section 4. Ongoing review of evidence and research supporting the **Policy**

The ongoing development of the Renewable Transport Fuel Policy involves extensive public and stakeholder engagement. The Policy is reviewed every two years to ensure that it remains iterative and responsive to changes and developments under the national policy or European obligations.

Regarding the considerations of the Minister in developing and implementing RTF policy, there is ongoing review of the evidence base required to support this including:

- the rate of actual (versus projected) renewable transport fuel supplied/consumed each year
- the quantum of supply of crop-based biofuels and high-ILUC-risk biofuels below required levels
- GHG emission savings on a lifecycle basis
- the rate of actual (versus projected) renewable energy share in transport
- air quality and non-carbon emissions within EU CAFÉ requirements
- price of fuels and biofuels to gauge possible pump price impact on consumers

In addition, discrete studies can provide a snapshot or deep dive into specific aspects related to the RTF policy.

## The Biofuel Study Report 2022

The Biofuel Study Report by Byrne O'Cleirigh states that 'there is a complex relationship between the requirements of Renewable Energy Directive and Ireland's national transport targets (B20 and E10).' Rather than stating that these are incompatible, the Report suggests that this presents challenges for administration of both EU and National targets through one renewable transport fuel obligation, in the 2007 Act.

The National target for supply of biofuel for B20 by 2030 under the Climate Action Plan, will inevitably incentivise the continued and further supply of biofuels from UCO in transport consumption in the State. However, under the EU Directive the 1.7% limit on biofuels from UCO and tallow is not applied to the overall renewable energy share (RES) reported - encompassing all the renewable energy consumed in the state – including transport, heating, and power generation sectors.

The report concludes that in order to ensure that Ireland meets the EU requirements in the context of ambitions national targets for biofuels, it will be necessary to both increase the share of renewable electricity in transport (delivering on CAP EV targets) and incentivise the supply of advanced biofuels (i.e. Annex IX listed feedstocks other than UCO and tallow).

## **Proposed Actions:**

The Department in 2023 will establish a working group to progress further examination and research building on the conclusion of the Biofuel Study Report 2022 to address the challenge of achievement of EU renewable energy obligations and ambitious domestic targets for biofuels. This would include the contribution of advanced biofuels, RFNBOs and potential renewable electricity, in future road, aviation and maritime transport consumption, considering research and analysis in Europe, the UK and beyond as recommended in the Biofuel Study Report 2022.

In collaboration with the NORA, the Department in 2023 will review the indicators for ongoing assessment of impacts of changes to the RTFO as proposed in this policy statement, considering possible socio-economic and distributional impacts.

## **Observations sought:**

Concerning the proposal for a working group to progress further examination and research, addressing the policy challenge of EU obligations and domestic targets:

Do you agree with this approach in addressing the conclusion in the Biofuel study?

Yes, Circle K fully supports further exploration of reports before final decisions are reached and proposals raised. The landscape is changing every year and Circle K would urge that these changes are accounted for within each revision of the RTFO, as well as how RTFC's are generated in the meeting of this obligation.

As the largest supplier of Road Transport Fuels in Ireland we recognise the need for de-carbonisation of all road transport fuels and are fully supportive of all initiatives to achieve this goal. We believe that all steps taken to mitigate the cost to the consumer must be considered in the introduction of these measures.

With regards to this consultation, and consultations over the last number of years Circle K are disappointed with the Department's adherence and setting of timelines.

In the most recent consultation relating to multipliers on certain biofuels such as HVO, the relevant government department completely amended the outcome from their advice of the previous 24 months, and did so some three months in the current obligation period. This was despite assurances that the outcome would be as proposed in the days leading up to the final decision.

As an industry the procurement cycle generally runs from January to December. Originally the industry had been advised that the multipliers would be in effect on the 1st of January. There had been several meetings and presentations indicating this. The last-minute change during December had potential to cause significant difficulty to the oil industry, and add significant costs that would ultimately be borne by the consumer and logistics sector. Then despite assurances that the consultation would be implemented in April 2023 the Department changed the decision.

Whilst we continue to welcome consultation, the recent consultation time frames leave virtually no room for consultation, and we question what level of analyses can be achieved on a consultation that runs to 2 days before the regulations are due to be enacted.

We would ask the Department to consider consultation timelines going forward and not to publish information and guidance that will be changed at the last minute. As previously noted, policy changes need to be confirmed at least some 6 to 8 months in advance of the period to which the revised obligations pertain.

If so, what are your views concerning the scope of the examination and research needed?

The decarbonization of fossil fuels is critical, and all options, whether policy or product, need to be considered, with no technology winner chosen thus far as the ultimate solution to the introduction of BIOFUELS.

As part of the scope, it should address technology issues (BIOFUELS development) as well as behavioral issues (why the transition to EV is not quicker) and actively engage on these.

In addition to the policy indicators, evidence and research identified in this policy statement, are there other evidence-based inputs which need to be considered to support future policy development and implementation? It is critical that Government meaningful engage with all stakeholders in the decarbonization of fossil fuels. Such engagement will lead to better formulation and implementation of policy, and collectively we can get to a desired state sooner.





Clonbio Group Ltd James Cogan

26.5.2023

## Q1. What do you think are the key considerations to be considered within this review?

As for road transport renewable diesel, the key factor is assurance that the fuels are traced and authenticated, and that in the case of waste-based biofuels, that the feedstocks be legally waste (not useable for other purposes) in their country of origin. Indigenous EU/Irish product must be prioritised.

## Q2. Do you agree or disagree with the proposed review timeline, and reasons why?

In a climate crisis, the timeline is way too long. As with all government/EU action there is a disconnect between what's needed (according to climate scientists, and as described by the Taoiseach at COP27 in 2022) and what is done.

## Q3. Do you agree that existing supports for cross-sector renewable electricity supply are sufficient to incentivise renewable electricity in transport consumption?

Yes

## Q4. If you agree, do you think that there is merit in reviewing this position again in 2025 or a later date?

Before further action Ireland's climate action reporting relating to electric vehicles should be focused on the absolute amount of renewable electricity consumed in transport, the percentage of total, and the emissions saved (absolute/percentage). In this way it will become clear how - despite the welcome uptick in new EV sales - how small a contribution renewable electricity is actually making. This should lead to more intensive measures to support renewable electricity uptake.

## Q5. Do you think that models such as in the Netherlands should be explored further for the benefits for electrification of transport?

Yes. EV infrastructure is terrible in Ireland and EV use is still restricted to a tiny number of planned routes and discretionary local driving. It is not fit for purpose for the vast majority of driving needs.

## Q6. What incentives would you like to see for supply of renewable transport fuels in aviation and maritime fuels?

Aviation policy is delusional. Even the low targets planned are totally unachievable, unless by fraud (using palm oil labeled as waste oil for instance). The only responsible course for the government is to denounce the current EU policy and disregard it.

Q7. What do you see as the key challenges or enablers to incentivise the supply of renewable transport fuels in aviation and maritime sectors?

It is impossible to cut emissions in aviation without cutting passenger-miles. Aviation demand is growing, there are no renewable fuels available even for the current size of the market.

Q8. Do you agree with the inclusion of non-road mobile machinery (NRMM) within the RTFO?

No comment

Q9. If this were introduced as a reduced RTFO rate initially what contribution would be appropriate – 75%, 50%, 25% or other?

Nil

Q10. In your view what should be the key considerations for this policy proposal?

Nil

Q11. What is the appropriate balance of consideration of benefits and impacts including social, economic and environmental considerations?

Nil

Q12. Given the proposed trajectory of increase in the RTFO to meet ambitious biofuel blending targets in the climate action plan, what steps can be taken within this policy to avoid future biofuel lock...

If the trajectory can be achieved with properly certified and audited renewables then "lock-in" is a false concern. It has no basis in climate science. The challenge is to cut emissions quickly.

Q13. What safeguards and mitigation could be included, within this policy or related Government policy, against possible socio-economic and distributional impacts, to ensure just transition?

No comment.

Q14. Do you agree or disagree with this approach? And why?

Cutting emissions quickly is the priority. 10% ethanol should be mandatory already and should have been for years. There would be 85% ethanol on the market by now if climate action were genuinely a priority. Ireland could be ethanol self-sufficient with modest political will, bringing benefits to the agri-food economy and making Ireland a plant-protein champion as well as ethanol self-sufficient.

Q15. Do you agree or disagree with the proposal for a higher national advanced biofuel obligation rate, beyond EU requirements?

The ABO is fundamentally wrong, leading to all kinds of distortions. So called "crop biofuels" are more sustainable than any actual advanced biofuel on the market, and crop biofuels are infinitely easier to regulate and govern, as well as being economical. That said, biomethane is the only fuel capable of enabling the targets and policy which fails to recognise this will fail.

Q16. What should the Department consider in setting the advanced biofuel obligation rate, including social, economic and environmental impacts?

Nil

Q17. What should be the key considerations – social, economic, and environmental, in establishing in 2025 a sub-target for renewable fuels of non-biological origin (RFNBO) and associated buy-out?

There are no RFNBOs and there is no line-of-sight to supply being there. RFNBOs are simply electricity converted to combustible molecules. There are fundamental supply & demand barriers.

Q18. What considerations should be included in this review – including possible social, economic and environmental impacts?

The regulator needs deep insight into the market in order for this to work and will need to maintain monthly engagement with operators within the sector. Current there are too few officials assigned to the area.

Q19. Would overall compliance be better achieved if the renewable transport fuel obligation were solely based upon a greenhouse gas intensity reduction rather than the current renewable energy obligation?

Yes

Q20. Would you agree with introduction of a greenhouse gas intensity reduction basis for the 2025 obligation period?

Yes

Q21. From your perspective, where does the focus need to be over the next two years concerning the implementation of the EU measures for oversight of sustainability and GHG reduction for renewable ener...

There needs to be credible fraud detection and prosecution. Currently there is none and none planned. Country or origins data (such as that published by NORA) should be published at EU level. The EU Commission is grossly negligent (as per EU Ombudsman's findings). Member States should demand change.

Q22. Do you agree with this approach in addressing the recommendations of the biofuel study?

Potential risk is not a reason for not doing something. There should be a working group and I would be happy to participate.

Q23. If so, what are your views concerning the scope of the assessment?

Nil

Q24. Do you agree with the proposed trajectory of decrease in high ILUC-risk biofuels supply to 2030, as set out in the policy statement?

Yes, or sooner.

Q25. Should this be reduced annually, or every 2 or 3 years?

Nil

Q26. Should the reduction to 0% be accelerated, e.g. by 2025 or earlier?

Yes. It's not an issue.

**Q27. Observations sought:** 

Concerning the proposal for a working group to progress further examination and research, addressing the policy challenge of EU obligations and domestic targets:

Do you ag...

Yes.

Q28. If so, what are your views concerning the scope of the examination and research needed?

The scope of any analyses should be absolute emissions reductions, in line with CAP 2023.

Q29. In addition to the policy indicators, evidence and research identified in this policy statement, are there other evidence-based inputs which need to be considered in order to support future policy...

Multiple counting should be eliminated in all reporting to the public and politicians. Reporting should focus on emissions and emissions reductions. Transport energy and climate action has been over-complicated by a dozen years of trying to keep up with dis-functional EU RED legislation.



College Group

Julie Ann O'Reilly

Q1. What do you think are the key considerations to be considered within this review?

Nil

Q2. Do you agree or disagree with the proposed review timeline, and reasons why?

Nil

Q3. Do you agree that existing supports for cross-sector renewable electricity supply are sufficient to incentivise renewable electricity in transport consumption?

Nil

Q4. If you agree, do you think that there is merit in reviewing this position again in 2025 or a later date?

Nil

Q5. Do you think that models such as in the Netherlands should be explored further for the benefits for electrification of transport?

Nil

Q6. What incentives would you like to see for supply of renewable transport fuels in aviation and maritime fuels?

Nil

Q7. What do you see as the key challenges or enablers to incentivise the supply of renewable transport fuels in aviation and maritime sectors?

Nil

Q8. Do you agree with the inclusion of non-road mobile machinery (NRMM) within the RTFO?

Nil

Q9. If this were introduced as a reduced RTFO rate initially what contribution would be appropriate – 75%, 50%, 25% or other?

Nil

Q10. In your view what should be the key considerations for this policy proposal?

Q11. What is the appropriate balance of consideration of benefits and impacts including social, economic and environmental considerations?

Nil

Q12. Given the proposed trajectory of increase in the RTFO to meet ambitious biofuel blending targets in the climate action plan, what steps can be taken within this policy to avoid future biofuel lock...

If this question has been understood correctly, the term lock-in is being used with negative connotations in this context. The increased trajectory for the RTFO and the blending targets in the climate action plan should only be viewed in a positive manner. Investments in biofuel production and technology development is essential and therefore must be supported by a long-term commitment from the government to continue to support the sector and legislate for use of these fuels. Today's solution cannot be dismissed tomorrow in favour of another technology. It is essential that the government acknowledges what we do best and focusses on protecting this and doing even better.

Q13. What safeguards and mitigation could be included, within this policy or related Government policy, against possible socio-economic and distributional impacts, to ensure just transition?

As biofuel inclusion increases significantly, this must not disproportionately affect the end-user. It is essential that all members of society play a role in reducing harmful emission by using biofuel, electricity or reducing their personal footprint on the environment. However, the cost of road fuel cannot increase exponentially.

## Q14. Do you agree or disagree with this approach? And why?

College Group support this approach. E10 is effective and safe and there is no reason to allow an inclusion of lower than 10%. We also advocate for a legislated minimum inclusion of biodiesel in road diesel to protect the indigenous biodiesel producers. Achieving B20 by using alternative fuels rather than biodiesel is not appropriate. A minimum inclusion of 7% biodiesel must be legislated.

Q15. Do you agree or disagree with the proposal for a higher national advanced biofuel obligation rate, beyond EU requirements?

College Group support a higher national advanced biofuel obligation rate. Obligating parties to include advanced biofuels will lead to purchase and ultimately production of these fuels.

Q16. What should the Department consider in setting the advanced biofuel obligation rate, including social, economic and environmental impacts?

All fuels should be assessed using GHG emission reduction capacity. This will allow accurate comparison and impact.

Q17. What should be the key considerations – social, economic, and environmental, in establishing in 2025 a sub-target for renewable fuels of non-biological origin (RFNBO) and associated buy-out?

Nil

Q18. What considerations should be included in this review – including possible social, economic and environmental impacts?

Additional certificates are not the solution to incentivising renewable transport fuels. The impact of these multipliers is negative and could potentially lead to less biofuel being blended despite the increased RTFO.

# Q19. Would overall compliance be better achieved if the renewable transport fuel obligation were solely based upon a greenhouse gas intensity reduction rather than the current renewable energy obligation?

Greenhouse gas intensity reduction is the true measure of the ability of any renewable transport fuel to benefit the environment. However, like all other calculated values, a clear scaffold of measurement and a transparent method of calculating is essential to make meaningful progress.

## Q20. Would you agree with introduction of a greenhouse gas intensity reduction basis for the 2025 obligation period?

With the correct oversights, this would be a welcome move.

# Q21. From your perspective, where does the focus need to be over the next two years concerning the implementation of the EU measures for oversight of sustainability and GHG reduction for renewable ener...

The database must be transparent and user friendly to ensure stakeholder buy-in. At present, progress appears slow and transparency is lacking. If the database's primary aim is to reduce fraudulent activity in the renewable energy sector, superior AI analysis and detection methods must be incorporated into the system. Additionally, prosecution of identified fraudulent behaviour is essential to give any power to the system.

Reputable certification bodies currently exist and audit companies for other European scheme. Addition of the database may be adding another layer of complexity rather than harnessing the already available information and auditing processes.

### Q22. Do you agree with this approach in addressing the recommendations of the biofuel study?

A working group would be welcome and must include participants from all sectors. However, action is required to protect the European market. Increased tariffs on both raw materials and finished biodiesel from outside Europe is essential to prevent further flooding of the European markets with raw materials and finished products that do not have a transparent supply chain.

## Q23. If so, what are your views concerning the scope of the assessment?

The scope of the assessment must analyse the entire supply chain and ensure that misclassification of products such as one oil as another, or one grade as another, can be prevented. Volumes must be plausible.

## Q24. Do you agree with the proposed trajectory of decrease in high ILUC-risk biofuels supply to 2030, as set out in the policy statement?

Nil

Q25. Should this be reduced annually, or every 2 or 3 years?

Nil

Q26. Should the reduction to 0% be accelerated, e.g. by 2025 or earlier?

## Q27. Observations sought:

Concerning the proposal for a working group to progress further examination and research, addressing the policy challenge of EU obligations and domestic targets:

Do you ag...

It is essential to continually review and amend the targets as new information becomes available. For this reason, a working group including representative of all key stakeholders, is ideal.

Q28. If so, what are your views concerning the scope of the examination and research needed?

Nil

Q29. In addition to the policy indicators, evidence and research identified in this policy statement, are there other evidence-based inputs which need to be considered in order to support future policy...

Nil



To: climateadaptationresearch&energydivision@transport.gov.ie

Re: Consultation Draft Renewable Transport Fuel Policy 2023-2025

EAI welcomes the opportunity to respond to this consultation. EAI represents the generators, distributors and suppliers of the electricity that will be used to decarbonise the Irish economy by 2050. As obligated parties in the Energy Efficiency Obligation Scheme (EEOS), our members have vast experience of participation in obligation schemes. We believe that the transport obligation scheme can and should incorporate electricity, but we are concerned as to the interaction between the various obligation schemes i.e. the EEOS, the expected Renewable Heat Obligation (RHO) and this renewable transport fuel obligation (RTFO). It is important that all these schemes are oriented towards carbon reduction.

The policy surrounding obligation schemes needs to be carefully considered to ensure that:

- a) The incentive effect for a fuel in one obligation scheme is equal to the incentive in another scheme, otherwise you'll get all of a particular fuel flocking to the scheme with the greater incentive and you will make the scheme with the lesser incentive more costly to fulfil
- b) Related to the point above to an extent, but generally making sure that the scheme designs complement each other.
- c) Consideration of how to manage instances where the same kWh of energy can be subject to two obligations. E.g., EEOS and RHO. Do for example we need to create a distinction between energy saving credits and decarbonisation credits.

The RFTO is simply priced in as a levy by the oil wholesalers. This contrasts with energy suppliers who essentially internalise and compete for measures. As fuel exporters are effectively price takers in the market (and their customer demand is arguably more inelastic than electricity and heating), it distorts competition within the EEOS, as the Fuel exporters have no incentive to deliver measures competitively.

We are eager to meet with the Department of Transport to discuss our concerns at your earliest convenience. In the meantime, please do not hesitate to contact me for further information or clarification in relation to our response.

Yours sincerely.

Stephen Douglas

Electricity Association of Ireland, 22<sup>nd</sup> of May 2023



## Response by Energia to Department of Transport

Consultation on the Draft Renewable Transport Fuel Policy Statement 2023-2025

## 1 Introduction

Energia Group is a modern customer-centric utility focusing on renewable technology. To date we have invested over €1 billion in the energy market across the island of Ireland and have committed to investing a further €3 billion across a range of projects, notably onshore and offshore wind, solar, hydrogen fuel generation and bio-energy facilities. Energia is currently developing a 1MW hydrogen electrolyser at long mountain the hydrogen from which will fuel a hydrogen refuelling station in Belfast. We'd be happy to discuss our projects relevant to the transport sector in greater detail with the Department of Transport should they so wish.

As a potential supplier of both hydrogen and biomethane, we have an interest in the policy mechanisms schemes that provide a route to market for low carbon fuels, particularly the Renewable Transport Fuel Obligation. Energia appreciates the opportunity to respond to this consultation. We welcomed the move to re-design the Biofuels Obligation Scheme into a scheme more generally supportive of all types of low carbon alternatives to fossil fuels, sharing the Department's view that doing so will promote competition between alternative fuel sources and in so doing reduce the overall cost of decarbonising transport fuel.

## 2 General Comments

## 2.1 Complimentary Obligation Schemes

The Climate Action plan commits Ireland to a number of ambitious decarbonisation targets, the majority of which envision electrification as the primary means by which they will be achieved. Unlike some heavy industries, electrification is already a cost effective alternative to many current practices in the Heat and Transport sectors. Encouraging greater levels of electrification should therefore be a focal point of policy measures to decarbonise both heat and transport.

Notwithstanding the points above, Energia would have concerns if the RTFO immediately introduced the ability for obligated parties to meet their obligations via measures involving electric vehicles. Noting that electric vehicle installations are already one way by which obligated parties in the Energy Efficiency Obligation scheme (EEOS), are entitled to meet their obligation. The long term goal of the scheme should be to encourage the most cost efficient means of decarbonising transport fuels; thus, electrification will need to be incorporated at some point in the not too distant future. Energia is not however convinced that enough consideration of how the inclusion of electricity measures in the RTFO scheme, would impact on both the electricity sector and the EEOS has been undertaken. Especially, if following the inclusion of EVs in the RTFO the number of electric vehicles on the road increased significantly.

Similarly, the as yet unveiled Renewable Heat Obligation also has the potential to create an alternative route to market for both hydrogen and biomethane at a different price/obligation level to the RTFO. The cost of the RHO scheme is anticipated to be levied on energy suppliers and thus indirectly consumers of fossil fuel heating products. In the current geopolitical climate, it would be a serious failure of policy to design a scheme that would risk increasing the cost of heating consumers homes in the coming winters (which are expected to already present a considerable challenge for many).



In the general case therefore, Energia contend that policy instruments designed to encourage decarbonisation compliment one and other. It would not be efficient for example to incentivise the consumption of a particular fuel in one sector (e.g., transport) to a greater extent than another sector (e.g., heating), if the carbon benefit of the fuel is the same in each sector. Much like the design of a carbon tax, the collective goal of the three obligation schemes should be to create a similar incentive by which market forces can then determine the optimal alternative fuel for each sector (considering price and emissions.).

The lack of coordination between the RTFO, RHO and EEOS schemes as presently designed however, creates a risk that obligated parties in one scheme are incentivised to procure fuels and measures that deliver greater carbon savings in other schemes. This is not only inefficient in terms of the deployment of resources, it also increases the risk that the cost of fulfilling obligation schemes falls disproportionately on sectors that people in disadvantaged circumstances rely on more critically, namely electricity and heating.

Energia's suggestion is that the Department of Transport liaises with both the Department of the Environment, Climate and Communications and the Department of Housing, Local Government and Heritage to understand the interdependencies of the existing obligation schemes EEOS and RTFO, to ensure that the forthcoming RHO scheme does not distort efficient decarbonisation signals. It may well be appropriate to commission a study as to how the three schemes might potentially be designed to work in a more harmonised fashion.

#### 2.2 Obligation levels and impact on consumers

As an obligated party under the Energy Efficiency Obligation scheme (EEOS), Energia has a requirement to continue to source energy efficiency measures at the lowest cost available. Eligible measures under this scheme include both the electrification of heat (via the installation of heat pumps) and transport (via installing Electric Vehicle chargers). The cost of meeting Energia's obligation under the EEOS is internalised by Energia and reflected in the tariff price we charge to final customers.

If the RTFO placed a credit or certificate on electrified transport solutions, if it was not correctly benchmarked against the credits in the EEOS scheme, it is likely to divert such measures to the transport sector obligation (RTFO) and away from the energy efficiency sector (EEOS). Reducing the supply of energy efficiency measures, increases the cost of meeting a supplier's obligation, a cost which is ultimately passed on to consumers. This is the primary reason why Energia would have concerns if electrified transport was included in the RTFO without industry consultation and an impact assessment.

Energia note that unlike the electricity and gas sector, obligation schemes are funded via an industry levy across all fuel suppliers obligated under the RTFO and the EEOS (where relevant). This implies that obligated transport fuel providers, simply pass on the cost of obligation scheme directly to their customer, and face no competitive pressure – i.e., to compete against each other – when attempting to fulfil their obligation. The combination of the inter-related nature of the Obligation schemes, coupled with the lack of competitive pressure on transport fuel providers, has the potential to distort competition and ultimately harm consumers if not adequately managed.



The demand for transport fuels are much more inelastic than fuels used in heating, implying that consumers of transport fuels are price takers to a greater extent than other industries. This places obligated parties in the transport fuel sector at an advantage compared to obligated parties in other sectors, as any increase in the cost of meeting their obligation can be more easily absorbed by the consumer. Given the entire purpose of an obligation scheme is to promote competition and thus efficiency, allowing transport fuel companies the continued ability to simply pass on the cost of meeting the obligation at any price seems a poor outcome for fuel customers and by extension heating customers (as the higher price paid for meeting obligations in the transport sector, raises prices to all sectors seeking to meet similar obligations).

Biomethane is anticipated to be an eligible fuel under the renewable heat obligation and will also provide a means for a number of electricity generators to reduce their emissions level. If, however the price of biomethane is allowed to climb arbitrarily due to demand from RTFO parties (who simply price in the cost), other sectors will be obliged to pay higher prices making it more expensive to decarbonise.

As previously stated, the goal of obligation schemes should be to impose a similar cost across all sectors (much like a single carbon tax or the EU ETS scheme), such that it promotes decarbonisation via the most economic means, preventing a distortion of prices and adverse allocation of in this case renewable fuels. Transport fuel suppliers must not have to internalise the cost and compete with one and other to fulfil their obligation, not simply for the sake of the fuel consumer, but for all consumers of energy and heating fuels that are subject to an obligation scheme.

#### 3 Proposed Actions and Observations Sought

Energia had no further comments in relation to the specific consultation questions.





**ESB Generation & Trading** 

Catheirne Joyce-O'Caollai

#### Q1. What do you think are the key considerations to be considered within this review?

Decarbonisation efforts concern all transport modes including rail, water transport and aviation, which will also require the development of alternative fuels trajectories. By deferring the inclusion of rail by an additional year (The Renewable Fuels for Transport Policy Statement 2021 – 2023 proposed extending the biofuel obligation currently applied to road transport fuels to rail by 2024), it is limiting the opportunities to deliver meeting this obligation. It is critical that policymakers set ambitious targets for zero emission across public transport fleet and clean air targets for urban areas.

#### Q2. Do you agree or disagree with the proposed review timeline, and reasons why?

As noted in the consultation document, Irish Rail is also examining the future potential of renewable hydrogen for certain services. Together with the potential for Hydrogen buses, this could be a future means to assist in meeting the separate RFNBO sub-target longer term.

The recently agreed revision of the Renewable Energy Directive sets a binding combined sub-target of 5.5% for advanced biofuels (generally derived from non-food-based feedstocks) and RFNBOs (mostly renewable hydrogen and hydrogen-based synthetic fuels) in the share of renewable energies supplied to the transport sector by 2030. Within this target, there is a minimum requirement of 1% of RFNBOs) in the share of renewable energies supplied to the transport sector in 2030. This is accompanied by a target that 42% of the hydrogen used in industry be replaced by RFNBOs by 2030 and 60% by 2035.

Therefore, policies should be developed to bring scale, and hence affordability, to the production of RFNBOs and the associated infrastructure for transportation and refuelling and deployment. In addition, there is a need to a need to provide a pathway to meet the objectives across a range of policy objectives. For example, the Clean Air Strategy For Ireland outlines the high-level strategic policy framework necessary to identify and promote the integrated measures across government policy that are required to reduce air pollution and promote cleaner ambient air, while delivering on wider national objectives. It notes the need for greater interaction between transport policy and air quality policy.

With respect to its interaction with the Climate Action Plan and achieving 50% reduction in transport emissions by 2030 and a net-zero position by 2050, it recommends a range of actions to meet this

level of higher ambition, including fleet electrification and the use of biofuels. These will continue to provide the greatest share of emissions abatement in the medium term in transport, and previous targets have now been revised to meet this higher level of ambition, including a 20% reduction in total vehicle kilometers travelled, a 50% reduction in fuel usage, and significant increases in sustainable transport trips and mode share between now and the end of the decade.

# Q3. Do you agree that existing supports for cross-sector renewable electricity supply are sufficient to incentivise renewable electricity in transport consumption?

Electricity has a transformative role to play in tackling climate change by eliminating carbon and other harmful greenhouse gas emissions from the energy sector. As outlined in the Climate Action Plan 2023, some of the most important measures in the plan is to increase the proportion of renewable electricity to 80% by 2030 and a target of 9 GW from onshore wind, 8 GW from solar, and at least 5 GW of offshore wind energy by 2030. This will reduce emissions from electricity and enable the electrification of other sectors such as transport and heat with the effect of reducing emissions in those sectors too.

Significant abatement targets are linked to electrification of transport in the Climate Action Plan 2023, whereby accelerating the electrification of road transport (e.g. increased use of electric and low-emission vehicles) is listed as a central carbon one of the core mechanisms to achieve sets out a modal shift to transport modes with lower energy consumption (e.g., public transport, walking and cycling) and increasing biofuel blend rates. Therefore, given the focus on the electrification of transport, it warrants exploring if the existing mechanisms are sufficient.

### Q4. If you agree, do you think that there is merit in reviewing this position again in 2025 or a later date?

There is merit in reviewing the position. As noted in the consultation paper, the EU Renewable Energy Directive allows additional counting for renewable electricity used in road (4 times credit) and rail (1.2 times credit) in transport. Notwithstanding the challenges associated with quantifying, for the purpose of the RTFO, the transport consumption of renewable electricity through EV charging in home, an impact assessment should be undertaken to examine potential ways to overcome these challenges.

## Q5. Do you think that models such as in the Netherlands should be explored further for the benefits for electrification of transport?

Yes.

One proposed additional measure that should be considered is the "Zero Emission Smart Transport" (ZEST) approach for clean transport, co-locating both zero emission transport charging and refuelling for public transport fleets, HGV fleets and private vehicles. This demonstrates energy sector integration (power and transport) where renewable energy from wind turbines/ solar produces renewable electrons and molecules for e-fuelling of Zero Emission vehicles, either BEV or FCEV. This will also maximise efficient use of grid connections from a capacity and connection point of view and grid charges such as Maximum Import Capacity (MIC).

The smart, flexible, dispatchable demand associated with ZEST e-fuelling can play an active role in the power system, contributing to the overall balance and flexibility of the system with load balancing and fast acting system services. This creates strong links between the renewable energy sources and the transport customer.

There is the added benefit of aligning infrastructure development with a range of EU mandated obligations, including but not limited to the Alternative Refuelling Infrastructure Regulation and enabling the development of infrastructure to align with the procurement of public transport fleets as mandated by the Clean Vehicles Directive.

## Q6. What incentives would you like to see for supply of renewable transport fuels in aviation and maritime fuels?

Retrofitting an existing scheme to incentivise the production of renewable fuels in aviation and maritime may be insufficient. An obligation scheme dominated by substituting fossil fuels with bioderived products neither leverages Ireland's abundant natural resources nor reduces our dependence on imported fuels.

## Q7. What do you see as the key challenges or enablers to incentivise the supply of renewable transport fuels in aviation and maritime sectors?

The additional costs associated with the production of e-fuels must be considered. E-fuels, produced from hydrogen and captured CO2, can produce drop-in fuels chemically identical to fossil fuels, with fewer constraints on feedstock availability and supply chains compared to biofuels.

Q8. Do you agree with the inclusion of non-road mobile machinery (NRMM) within the RTFO?

Nil

Q9. If this were introduced as a reduced RTFO rate initially what contribution would be appropriate – 75%, 50%, 25% or other?

Nil

Q10. In your view what should be the key considerations for this policy proposal?

Nil

Q11. What is the appropriate balance of consideration of benefits and impacts including social, economic and environmental considerations?

Nil

Q12. Given the proposed trajectory of increase in the RTFO to meet ambitious biofuel blending targets in the climate action plan, what steps can be taken within this policy to avoid future biofuel lock...

The future development of the RTFO should be designed in a way to align with Ireland's decarbonisation strategy, the most important aspects being cited in the CAP 2023 as increasing the proportion of renewable electricity to 80% by 2030 and a target of 9 GW from onshore wind, 8 GW from solar, and at least 5 GW of offshore wind energy by 2030.

ESB acknowledges the role of biofuels in the transition to increased electrification of transport, and in transitioning to hydrogen for heavy goods vehicles. While the principle of multiple credits for renewable hydrogen for transport is to be welcomed, the use of obligations schemes is not without pitfalls in the development of new industries. there are several shortcomings in use of obligation schemes to incubate a new industry such as production and use of renewable hydrogen. It does not allocate cost risk or volume risk in a way that attracts investment and finance from hydrogen producers at the appropriate cost of capital.

# Q13. What safeguards and mitigation could be included, within this policy or related Government policy, against possible socio-economic and distributional impacts, to ensure just transition?

As noted in CAP 2023, the transition to a climate neutral economy has significant potential to create employment and enterprise opportunities. A just transition can mean new jobs, new skills, new investment opportunities, and the chance to create a more productive and resilient economy. While the transition will require targeted supports to help particularly impacted groups, regions and communities adapt, we are also working to support our citizens, communities, and regions to realise the benefit of these opportunities.

In using the nascent renewable hydrogen sector as an example, it has the potential to provide regionally balanced development through the creation of hydrogen valleys. Hydrogen valleys or clusters can facilitate collaboration and efficient use of storage and transport infrastructure across sectors / different demand customers and through the entire value chain (renewables - hydrogen production - hydrogen transport - hydrogen storage - hydrogen use. Through local value creation, additional job creation, the improvement in air quality and the resulting visibility, Hydrogen Valleys can pave the way for the full roll-out of a global market by showcasing its potential on an increasing scale. The cluster model can work to promote knowledge of various end uses of hydrogen and hydrogen-derived products, as well as promotion of innovation and pilot projects to expand use of hydrogen to new customers and, ultimately, strengthen the demand for hydrogen.

#### Q14. Do you agree or disagree with this approach? And why?

Nil

# Q15. Do you agree or disagree with the proposal for a higher national advanced biofuel obligation rate, beyond EU requirements?

Increasing the national advanced biofuel obligation rate must be considered in the context of existing interrelated national and EU targets, and the resulting competition for biobased feedstock.

The government introduced the target of up to 5.7 TWh of Biomethane by 2030 as part of the Sectoral Emissions Ceiling announcement. This was accompanied by a few measures as part of the Government's announces sectoral emissions ceiling, including additional resources for solar (more than doubling the target to 5,500 MW), offshore wind (moving from an original target of 5,000 MW to 7,000 MW with the additional 2,000 MW ear-marked for green hydrogen) to further accelerate the reduction of overall economy-wide emissions. The Ceilings set maximum limits on greenhouse gas emissions for each sector of the Irish economy to the end of the decade. This was reaffirmed in the CAP 2023.

SEAI's Sustainable Bioenergy for Heat publication, part of the series of publications in the National Heat Study, notes how everyday economic activity produces a range of low-value and sustainable biomass resources that are suitable for energy production. The domestic bioenergy resources considered in this study are estimated to amount to 6.5 TWh in 2020, about 4% of primary energy supply. Just over two-thirds (4.4 TWh) of these resources were utilised for bioenergy in 2020, suggesting that bioenergy use could be increased significantly at present. In addition to these domestic resources, about 2 TWh of imported bioenergy was used, of which three quarters was liquid biofuels for transport with the remainder being wood pellets for co-firing in power stations and for biomass boilers. However, it notes some of the restrictions relating to potential feedstock availability, stating "the quantities of these bioresources are unlikely to increase significantly in the

future, as the quantities generated are driven by activity in the primary industry itself and not by demand for bioenergy."

Given that the 6.5TWh already includes circa 1.5 TWh for use in transport, consideration must be given to how Ireland will reach the 2030 target of 5.7 TWh of Biomethane by 2030 against the backdrop of competing demands for relatively static levels of bioresources.

The SAF Manufacturing in Ireland report provides context to the recently agreed ReFuel Aviation targets highlighting further potential constraints on bioresources. EU legislators provisionally agreed to gradually increase the blending mandate for SAFs (starting at 2% in 2025, 6% by 2030, 20% in 2035, 70% by 2050) and dedicated sub-targets for the uptake of synthetic (hydrogen based) aviation fuels (1.2% synthetic fuel sub-target for 2030-2031, up to 2% synthetic fuel sub-target as of 2032. While it predicts growth at scale for hydrogen based synthetic fuels, biofuels are seen as providing a significant role up to 2030 (up to 94%).

## Q16. What should the Department consider in setting the advanced biofuel obligation rate, including social, economic and environmental impacts?

Competition for sources and ensuring that the sustainability criteria as legislated for under REDII is adhered to is of critical importance. The provisional agreement on the revision of the Renewable Energy Directive (RED III), and its interaction with proposals to increase the national target for ABF, should also be considered strengthens the sustainability criteria for biomass use for energy, to reduce the risk of unsustainable bioenergy production. It legislates for the application of the cascading principle, with a focus on support schemes and with due regard to national specificities.

# Q17. What should be the key considerations – social, economic, and environmental, in establishing in 2025 a sub-target for renewable fuels of non-biological origin (RFNBO) and associated buy-out?

Existing RED II targets and the targets as proposed under the provisionally agreed RED III, and a trajectory to meet them, should be considered in establishing a sub-target for RFNBOs.

Hydrogen fuel cell electric vehicles (HFEC) can complement BEV in achieving significant reduction of emissions and CO2 within the transport sector. There are similarities with respect to the delivery of EV charging and hydrogen refuelling infrastructure. While the intention behind the multiple credits for renewable hydrogen for transport is welcome, retrofitting an existing scheme to incentivise production of renewable hydrogen into an existing scheme for dilution of fossil fuels with biosubstitutes is insufficient to provide confidence for investors in hydrogen production. It is not 'bankable' and so is not sufficient to be a reliable revenue stream to de-risk early projects.

Under the recently agreed Alternative Refuelling Infrastructure Regulation (AFIR), Member States will be required to develop a deployment strategy, the National Policy Framework, outlining how they will meet the 2030 targets. A draft must be provided to the European Commission by January 2025, showing a linear deployment of infrastructure serving alternative fuels in road transport. Given the importance of hydrogen refuelling infrastructure in enabling fuel switching, a mechanism to support the delivery should be included in the draft National Policy Framework to meet AFIR.

The development of sub-targets for RFNBOs must be cognisant of the potential for renewable hydrogen and hydrogen-based fuels to decarbonise a range of other modes of transport not suited to electrification, such as certain segments of rail, shipping and aviation. There are co-benefits in adding value to electrons through the production of hydrogen fuels, and it will have the effect of introducing innovative business opportunities across regionally dispersed locations.

Q18. What considerations should be included in this review – including possible social, economic and environmental impacts?

Nil

Q19. Would overall compliance be better achieved if the renewable transport fuel obligation were solely based upon a greenhouse gas intensity reduction rather than the current renewable energy obligation?

Aligning compliance with GHG intensity reduction would better align with existing statutory targets in the Climate Action and the Low Carbon Development Act and the objectives as laid out in CAP 2023.

Q20. Would you agree with introduction of a greenhouse gas intensity reduction basis for the 2025 obligation period?

Nil

Q21. From your perspective, where does the focus need to be over the next two years concerning the implementation of the EU measures for oversight of sustainability and GHG reduction for renewable ener...

Nil

Q22. Do you agree with this approach in addressing the recommendations of the biofuel study?

Nil

Q23. If so, what are your views concerning the scope of the assessment?

Nil

Q24. Do you agree with the proposed trajectory of decrease in high ILUC-risk biofuels supply to 2030, as set out in the policy statement?

Nil

Q25. Should this be reduced annually, or every 2 or 3 years?

Nil

Q26. Should the reduction to 0% be accelerated, e.g. by 2025 or earlier?

Nil

**Q27. Observations sought:** 

Concerning the proposal for a working group to progress further examination and research, addressing the policy challenge of EU obligations and domestic targets:

Do you ag...

The potential contribution of renewable hydrogen and potential renewable electricity, in future road, aviation and maritime transport consumption, should be further examined.

Q28. If so, what are your views concerning the scope of the examination and research needed?

Nil

Q29. In addition to the policy indicators, evidence and research identified in this policy statement, are there other evidence-based inputs which need to be considered in order to support future policy...

The interaction with existing national commitments under the Sectoral Emission Ceilings and CAP 2023, as well as recent provisionally agreed files under Fit for 55, such as the Renewable Energy Directive.



# ESB Customer Solutions Response: Consultation on the Draft Renewable Transport Fuel Policy Statement 2023-2025

#### Introduction

ESB Customer Solutions welcomes the opportunity to respond to the Department of Transport's Consultation on the Draft Renewable Transport Fuel Statement 2023-2025. ESB Customer Solutions is comprised of several customer centric business units, including ESB eCars and Electric Ireland. We have over 10 years' experience in the electromobility space and are working towards ESB's strategy of achieving net zero emissions by 2040. Our response is focussed on the consultation section covering renewable electricity in road and rail transport.

We recognise the important role that renewable transport will play in achieving decarbonisation for the sector and achieving our Climate Action Plan goals. The Climate Action Plan 2023 sets a 2030 target share of 30% for Electric Vehicles (EV) of the total passenger car fleet and sets an aim for all new vehicle registrations to be EVs. In this context, there is a clear need for appropriate supports in order to ensure that these targets are achieved.

ESB Customer Solutions does not agree with the proposal to exclude electricity used for transport from the RTFO. Electricity is a low-carbon form of energy that can power a range of transportation modes. By including electricity for transport in the renewable transport fuel obligation, the Government can further incentivize the development and adoption of EVs. By excluding electricity for transport from the renewable transport fuel obligation as proposed, the Government would miss out on a key opportunity to accelerate the decarbonisation of this sector and risk creating an uneven playing field for renewable transport technologies.

We have provided responses to the relevant consultation questions below.

# Do you agree that existing supports for cross-sector renewable electricity supply are sufficient to incentivise renewable electricity in transport consumption?

While it is true that there are existing market-based supports and incentives for renewable electricity supply, it is important to recognise that the transportation sector accounts for a significant portion of carbon emissions in Ireland (15.7% in 2021) and all feasible mechanisms of support should be considered and any potential interactions with other supports such as EEOS should be evaluated and accounted for.

By incentivizing the use of biofuels but not electricity, the policy would favour one technology over another, potentially distorting the market and hindering the growth of the EV industry.

# If you agree, do you think that there is merit in reviewing this position again in 2025 or a later date?

Yes, if supports are not implemented for 2023-2025, this position should be reviewed in 2025. If it is determined that the incorporation of electricity into the RTFO is not feasible, other mechanisms should be considered within the scope of the Renewable Transport Fuel Policy and account for potential interactions with other support mechanisms.



# Green Biofuels Ireland Ltd



Marshmeadows, New Ross, Co. Wexford Y34 TV72 Tel: 051 447628 Fax: 051 440822

admin@gbi.ie www.gbi.ie

# PUBLIC CONSULTATION ON THE RENEWABLE FUELS FOR TRANSPORT POLICY May 2023.

SUBMISSION ON BEHALF OF GREEN BIOFUELS IRELAND LIMITED. (GBIL).

**Date: 25<sup>TH</sup> MAY 2023.** 

Dear Sir/Madam,

We welcome the opportunity to make this submission regarding Renewable Fuels in Transport. GBIL is Ireland's largest indigenous biodiesel manufacturer. Employing 32 full time staff and with more than 100 in the supply chain, production commenced in July 2008 and to date the company has manufactured and sold over 500,000,000 litres of fully sustainable and certified waste biodiesel, servicing most of the obligated parties in Ireland and providing over 1,320,000 tonnes of CO2 savings to the Irish transport sector in that period.

The feedstocks for the facility are used cooking oil and Category 1 animal fats sourced solely on the island of Ireland, thus providing a valuable revenue to the farming and waste collection industries in Ireland, whilst providing the highest greenhouse gas saving biofuel to Irish consumers.

#### **Section 1: Review of the RTFO Scope**

Currently the scope of the RTFO relates to road transport fuels in relevant disposals of petroleum products. RTFs supplied in other sectors in transport, such as non-road mobile machinery, aviation or maritime can be eligible for RTFO certificates, but they are not included within the obligation.

As indicated in the Policy Consultation 2022, the merits of extending the scope of the RTFO could be considered further. Among the key benefit would be to further contribute to decarbonisation of the transport sector.

#### **RAIL TRANSPORT**

The transport target for renewable energy in the EU Renewable Energy Directive is the share of RTFs in the final consumption of energy in the road and rail transport sectors. However, Ireland's RTFO as

1

provided for under the 2007 Act concerns only road transport. Subject an amendment to the definition of 'relevant disposals' in the 2007 Act, the scope of the RTFO could be extended to rail transport fuels, mirroring the scope of the EU Renewable Energy Directive.

Irish Rail is the monopoly heavy rail operator in Ireland with a statutory function to provide public transport services in the State. Irish Rail is an RTFO account holder by virtue of supplying diesel for use by Dublin Bus and Bus Éireann.

A B7 blend in diesel has recently been introduced in 2023 for use by CIE (Coras Iompair Eireann) across all its companies' operations – bus and rail, which will contribute towards achieving the RTFO.

The timing of the inclusion of supply for use in rail within the RTFO will have regard to ongoing consideration by the Company concerning the possibility of increasing RTF blending in future years.

It is noted that Irish Rail is also examining the future potential of green hydrogen energy use for certain services. Together with the potential for Hydrogen buses in the short-term, this could be a future means to meet a separate RFNBO sub-target longer term.

**Proposed Action:** With consideration to the initial steps that have been taken by CIE this year at an operational level to comply with the RTFO, and the need for consideration of primary legislation to extend the scope of the definition of 'relevant disposal' for the purpose of the RTFO, the timeline for the proposal to include rail within the RTFO will be extended to 2025.

#### Observations sought:

A review to include rail transport fuel within the scope of the RTFO by 2025 is proposed:

What do you think are the key considerations to be considered within this review?

We believe the key considerations should surround the biofuel quality and the compatibility with the existing rail fleet. Under current legislation all biofuel must meet the relevant EN specifications which is difficult to achieve in relation to biodiesel unless the product is distilled and any mandate that covers the rail sector should only be made from distilled biodiesel

Do you agree or disagree with the proposed review timeline, and reasons why?

We disagree with the proposed review timeline as actions should be taken sooner rather than later. With the introduction of the Irish biofuel obligation in 2010 all buses should have been operating on biodiesel blends; however, it is only in 2023 that a B7 blend may have been introduced which took 13 years.

#### RENEWABLE ELECTRICITY - IN ROAD AND RAIL TRANSPORT

The EU Renewable Energy Directive allows additional counting for renewable electricity used in road (4 times credit) and rail (1.2 times credit) in transport. For the purposes of the reporting under the EU Renewable Energy Directive, the Sustainable Energy Agency of Ireland (SEAI) estimate the amount of renewable electricity consumed in transport in the State in different sectors.

The electrification of transport through ambitious EV targets in the climate action plan, is a pathway for greater renewable electricity in transport consumption. Supply of electricity in road transport is not obligated nor renewable electricity supply rewarded under the RTFO currently, and the last Policy Statement included an action to examine the possibility of doing so.

Production and supply of renewable electricity for consumption across all economic sectors is already supported through the renewable electricity support scheme (RESS) and public service obligation (PSO) levy, with Climate Action Fund grants for EV purchase and infrastructure supporting increased transport consumption.

Furthermore, it would be challenging to quantify, for the purpose of the RTFO, the transport consumption of renewable electricity through EV charging in private homes (roughly 70% of charging) separate to other household electricity consumption, for consumers without smart electricity meters and related smart services. It is noted that the renewable heating obligation (RHO), which is in development, will not include renewable electricity.

It is likely that extending the RTFO to renewable electricity in transport would serve as additional to existing market-based supports and incentives for renewable electricity for renewable electricity production and supply that would have occurred in transport anyway - including EVs in road transport and electricity supply for rail transport by Irish Rail and LUAS currently, and in the future MetroLink. Electricity is already on a pathway to decarbonisation and is expected to be at least 80% renewable by 2030 under the Climate Action Plan.

In the Netherlands, there is a model whereby RTFO certificate/credit has been extended specifically to benefit investors in large scale EV infrastructure development, whereby the credit can be traded with obligated RTFO/fuels suppliers. If implemented in Ireland, this could have benefit for EV infrastructure investment (relating to roughly 30% of charging), but would displace biofuel blending activity, and would result in the RTFO rate having to be increased further to offset the biofuel blending displacement.

No Further Action is proposed.

#### **Observations sought:**

Following consultation and review, it is intended that electricity used for transport would not be included in the RTFO:

Do you agree that existing supports for cross-sector renewable electricity supply are sufficient to incentivise renewable electricity in transport consumption?

Yes, we are firmly of the opinion that all the existing supports are totally sufficient to incentivize renewable electricity in transport consumption which can be seen with the increasing uptake in EVs and therefore should not be included in the RTFO.

If you agree, do you think that there is merit in reviewing this position again in 2025 or a later date? We believe that any review should be carried out based on the penetration of EVs in Ireland but at the earliest 2027.

Do you think that models such as in the Netherlands should be explored further for the benefits for electrification of transport?

No, we do not believe that this model is practical.

#### **AVIATION AND MARITIME FUELS**

Under the EU Fit for 55 package of legislative proposals, there are two impacting directly on the decarbonisation of fuels used. Both the so-called "Refuel EU" for Aviation and "Fuel EU" for Maritime regulations will have direct effect, and the details are subject to negotiation at a European level.

In the Fuel EU Maritime regulation, there is an obligation on shipping companies concerning: 1) a GHG reduction target on energy produced on board ships (2% in 2025, rising to 75% in 2050) and 2) an onshore power (OPS) requirement, which will tie in with proposed EU Alternative Fuel Infrastructure Regulation obligations on Member States.

In the ReFuel EU Aviation proposal, there is an obligation on fuel suppliers to ensure that all aviation jet kerosene made available contains a minimum mandated level of SAF (minimum 2% in 2025 rising to 63% in 2050, and a 0.7% RFNBO sub-target in 2030 rising to 28% in 2050). The proposal also provides for a transitional period, commencing from 1 January 2025, during which, for each reporting period (annual), an aviation fuel supplier may supply the minimum mandated share of sustainable aviation fuel (SAF) as a weighted average over all the aviation fuel it supplied across Union airports for that reporting period.

Currently the RTFO provides for RTFO certificates to be granted for supply of RTF in aviation and maritime fuels, to incentivise supply of RTF in these transport sectors.

Stakeholder responses to the Policy Consultation in 2022 suggested that any mandate for supply of advanced or development renewable fuels, e.g., for use in these marine and aviation sectors, alone would have little impact on their supply if there is low or no availability of these fuels and their feedstocks. This may point to a need for support or incentives targeting production of these RTFs, which is outside the scope of the RTFO.

**Proposed Action:** To review the demand and supply of SAF and RTF in maritime fuel within the context of RTFO certificates issued or the draft regulations for additional RTFO certificates, as part of the evidence base for any future policy consideration within the context of implementing future EU Regulations.

#### **Observations sought:**

What incentives would you like to see for supply of renewable transport fuels in aviation and maritime fuels? We believe that it is imperative that maritime fuels be brought within the auspices of the RTFO regulations as soon as possible as exists in many other EU member states and the United Kingdom.

What do you see as the key challenges or enablers to incentivise the supply of renewable transport fuels in aviation and maritime sectors?

Aviation: Converting technologies and feedstock availability will be the key challenges within the aviation sector. It is important that regulations do not favour feedstocks that have an existing use in the road transport industry, as emissions in the road transport greatly exceed that of the aviation industry. As well as this, it is incredibly unlikely that there will be sufficient SAF available globally to make a significant reduction in carbon emissions in the aviation industry.

Recently the Boeing CEO warned that climate friendly biofuels will never achieve the price of jet fuel. There are no cheap ways to do SAF, otherwise the industry would already be doing them. He quoted that "Anyone who says the cost of transitioning to net zero are going to be low or unnoticeable I am afraid is fooling themselves, as the price of SAF in the US if \$6.83 a gallon as against \$2.34 a gallon of jet fuel."

Marine: We don't believe there are any current impediments to mandating the use of biodiesel in maritime fuels, sooner than later, as biodiesel is fully compatible with all diesel engines within the shipping industry and a recent study indicated that over two thirds of ship owners, charters, financiers in the maritime industry prefer biofuels as a solution to decarbonizing the marine sector. Therefore, we believe that maritime fuels should be included in the RFTO as soon as possible.

#### NON-ROAD MOBILE MACHINERY

Currently the relevant disposals for the purpose of the RTFO relates to road transport fuel only, and non-road mobile machinery (NRMM) is outside the scope of the RTFO.

However, biofuels blended with gas oil, or in liquified petroleum gas (LPG), which is used in NRMM are eligible for RTFO certificates, as they both fall within the definition of a renewable transport fuel.

The gas oil market is roughly the same scale as the petrol market, i.e., about 1 million litres per year, in the State. It is estimated by the NORA that to apply the RTFO to gasoil used for transport purposes could yield a 0.9MT CO2eq abatement between now and 2030.

To implement these carbon reduction benefits through the RTFO, the scope of the obligation and the definition of relevant disposals would need to be expanded to include NRMM. Applying the full RTFO rate would achieve the possible carbon reduction benefits estimated above. Alternatively, a lower percentage contribution NRMM toward the RTFO rate would achieve part of this carbon reduction benefit.

While there are benefits from a climate perspective, consideration is also required as to the impacts or consequences within in the economic sectors using NRMM. The balance needs to be assessed between the benefits of carbon reduction lost against the impact on consumers of gasoil and users of NRMM, in terms of price impacts.

The ambitious targets for anaerobic digestion biomethane production under the climate action plan are also noted in this context along with future potential for NRMM to be powered by these alternative energy sources.

**Proposed Action:** Further consideration is to be given to inclusion of the category of NRMM in the scope of the RTFO, in the context of decarbonising hard to abate sectors, and the timeframe of implementing emission ceilings within the second carbon budget, which commences in 2026.

#### **Observations sought:**

Do you agree with the inclusion of non-road mobile machinery (NRMM) within the RTFO?

Yes, we believe that not only will it yield the desired CO2eq. abatement but it is already part of the relevant obligation schemes throughout the EU member states and UK.

If this were introduced as a reduced RTFO rate initially what contribution would be appropriate – 75%, 50%, 25% or other? Initially it could be introduced at 25% increasing in year 2 to 50% and year 3 to 75% and then year 4 to 100%.

In your view what should be the key considerations for this policy proposal?

What is the appropriate balance of impacts including social, economic, and environmental considerations?

#### Section 2: RTFO rate, targets, and limits

#### THE RTFO RATE

From 2023 the RTFO rate is expressed in energy terms, rather than in volume terms, previously.

In line with meeting Climate Action Plan targets and EU Fuel Quality Directive requirements (see next section), in 2022 the RTFO rate was increased from 12% to 15% by volume as a % of road fossil fuel. In January 2023, the RTFO rate was further increased to approximately 17% by energy (as a % of road fossil fuel)

In 2022, approximately 307m litres (9.6 PJ) of liquid biofuels and 0.04 PJ of gaseous fuels were placed on the market, which was an increase from 246m litres (7.6 PJ) of liquid biofuels and 618k Nm3 (0.2 PJ) of gaseous fuels in 2021.

The Biofuels Study Report 2022 estimates 72-78m litres of bioethanol and between 570-730m litres of biodiesel/HVO could be required to meet the Climate Action Plan transport targets by 2030.

In line the Climate Action Plan targets, which are broadly supported by stakeholder responses in the Policy Consultation 2022, it is proposed to increase the RTFO rate annually. The last Policy Statement set out an indicative projected trajectory for annual increases in the RTFO to 2025, and up to an estimated 38% by energy rate from 2030.

The trajectory to 2025 has been reviewed and adjusted, supported by analysis by the NORA RTFO Team considering actual supply to date and the impact of actual and planned changes in the contributory elements within the RTFO.

The trajectory of increase of the RTFO annually to 2030 as a % of road fossil fuel is set out in the table below. While the projected figures appear high this reflects the assumptions being made on potential for 15% disposal using certificates from previous years, and multipliers that will be applied to actual volumes placed on the market. The underlying assumption remains as an E10/B20 blend.

	2024	2025	2026	2027	2028	2029	2030
RTFO	21%	25%	29%	34%	39%	44%	49%

The RTFO is expressed as a percentage of road diesel and gasoline and is set at a level that is forecast to achieve both domestic targets (E10 & B20) and EU requirements. The above penetration of renewable fuels in the transport market is estimated to deliver over 1  $MtCO_{2eq}$  emission savings in 2030.

Transport sector modelling is complex, and several assumptions are relied upon when forecasting the RTFO. For example, the diesel - gasoline mix, the rate of double counting and additional counting, the feedstock mix, etc. The further into the future the model forecasts, the more uncertain the results become. To account for this and potential changes in the market, the trajectory should be updated annually.

**Proposed Action:** the RTFO rate is projected to be increased by 4.5 percentage points (from the current 16.5 to 21%) by energy for the obligation period 2024; and 4 percentage points (from 21% to 25%) by energy for the obligation period 2025, subject to statutory consultation on draft regulations; and in 2024 a further review and consultation is to be carried out on the indicative annual trajectory of increase in the RTFO rate 2026-2030.

#### Observations sought:

Given the proposed trajectory of increase in the RTFO to meet ambitious biofuel blending targets in the climate action plan, what steps can be taken within this policy to avoid future biofuel lock-in?

We do not believe that there will be any future biofuel lock in as there are sufficient alternatives, eg. HVO, CoHVO, that complement the addition of waste-based biofuels

What safeguards and mitigation could be included, within this policy or related Government policy, against possible socio-economic and distributional impacts, to ensure just transition?

We believe that any increases in the RFTO obligation rate should also factor in a minimum blend wall, (currently B7 proposed B12 and B20) for waste-based FAME that has gone through a transesterification and distillation process, as per EU ABP legislation, which will ensure the continued smooth operation of the Irish biofuel and meat processing industries.

#### **E10 MANDATE**

To incentivise E10 supply in the Irish market, the legal provision in Section 11 of the Oil Emergency Contingency and Transfer of Renewable Fuel Function Act 2023 provides for establishment of a minimum percentage ethanol in petrol placed on the market in the State, which can be reviewed and adjusted over time.

The conclusion from the Policy Consultation in 2022 was to ensure the right level of ambition was maintained in the policy on renewable transport fuels, requiring ongoing review.

The Biofuel Study Report 2022 recommends an examination of the possibility of increasing bioethanol rates.

It is understood that some other countries have a higher minimum requirement for ethanol in petrol, for example the Netherlands has an 8.5% biofuel requirement in petrol with a 7.5% minimum blend of ethanol and is seeing actual ethanol supply of up to and over 10% blended in petrol.

Therefore, the minimum percentage which will be specified in Regulations for the 2023 obligation period will also be kept under review to ensure that the actual supply of ethanol achieves Climate Action Plan target of E10 by 2025, while maintaining a crop-based biofuel contribution in Ireland's RTF supply within the EU Renewable Energy Directive limit of 2%.

**Proposed Action:** A review of the effectiveness of the 5.5% minimum percentage ethanol in petrol measure in meeting the CAP target with a view to adjusting the specification upwards by 2025, subject to consultation on draft regulations.

#### **Observations sought:**

To ensure achievement of the climate action plan target of E10 by 2025, it is proposed to keep under review

the supply of ethanol, with a view to possible increase in the minimum percentage ethanol in petrol by regulation in 2025:

Do you agree or disagree with this approach? And why?

#### ADVANCED BIOFUEL OBLIGATION

In line with the targets for advanced biofuels supply set out in EU Renewable Energy Directive an advanced biofuel obligation rate was established in 2023 at 0.3% by energy, to incentivise the supply of biofuels from feedstocks listed in Annex IX Part A.

Also established in the 2023 obligation period is an advanced biofuel buy-out charge of €0.08 per/MJ shortfall and provision has been made that in future years 15% of the advanced biofuel obligation can be met with RTFO certificates obtained for supply of advanced biofuels in prior years.

EU targets for supply of advanced biofuel share of renewable energy in transport consumption are at least 1% in 2025 and 3.5% in 2030. To meet these requirements, the indicative rate of increase of the advanced biofuel obligation is set out in the following table.

The trajectory of increase of the advanced biofuel obligation annually as a % of gasoline and diesel supplied in the road transport market (other fossil fuels are LPG and CNG) is set out in the table below. Again, the projected figures appear high reflecting the assumptions being made on potential for 15% disposal using certificates from previous years, and multipliers that will be applied to actual volumes placed on the market.

	2023	2024	2025	2026	2027	2028	2029	2030
ABO	0.3%	1.0%	1.5%	2.4%	3.4%	4.7%	6.2%	7.9%

As for the RFTO rate projections, considering many assumption and variables underpinning modelling forecasts, the trajectory should be updated annually.

Increase in the advanced biofuel sub-target by 2030 has yet to be agreed in the proposals for revision of the European Renewable Energy Directive and could be 1% in 2025 and as high as 4.4% in 2030 (as expressed in the Renewable Energy Directive).

Incentivising the production and supply of advanced biofuels and relevant feedstocks may involve increasing the advanced biofuel obligation to higher rates than the EU requirement and setting the penalty (buy-out) for missing the target at a level more than the average EU penalty price.

It is clear from the Policy Consultation 2022 that, while there is support for increasing the advanced biofuel supply, there is also concern that targets and demand incentives move too quickly ahead of available production and supply of these advanced biofuels and feedstocks

**Proposed Action:** the advanced biofuel obligation rate is to be increased by at least one percentage point (from 0.3% currently to 1.0%) by energy for the obligation period 2024; and by at least 0.5 percentage points (from 1.0% to 1.5%) by energy for the obligation period 2025, subject to consultation on draft regulations; and in 2024 a further review and consultation is to be carried out on the indicative annual trajectory of increase in the advanced biofuel rate 2026-2030.

#### Observations sought:

Do you agree with the proposal for a higher national advanced biofuel obligation rate, beyond EU requirements? We believe that careful consideration needs to be made in relation to moving the advanced biofuel obligation rate beyond EU requirements in the current climate whereby there is a significant exposure to questionable biofuels being imported into the EU. At the very least the EU Commission database should be fully functioning for several years before a decision is made.

What should the Department consider in setting the advanced biofuel obligation rate, including social, economic, and environmental impacts?

One of the most important considerations should be to ensure that only properly certified feedstocks should be permitted, as the current volume of POME (Palm Oil Mill Effluent) being imported into the EU vastly exceeds its actual availability and this can lead to fraudulent activity. It is widely known that there is currently little commercial processing capability for many of the feedstocks currently listed under Annex IX part A and it may take many years before commercialization takes place.

#### RENEWABLE FUELS OF NON-BIOLOGICAL ORIGIN (RFNBO)

The proposals for targets in the EU Renewable Energy Directive under the proposed EU Fit for 55 sets out a sub-target for supply of renewable fuels of non-biological origin (RFNBO) in the transport sector of a binding 1.5% target by 2030 complemented by a non-binding target of 5.2%.

This could be implemented by a percentage contribution for RFNBO being established within the RTFO rate in 2025, with a corresponding buy-out charge. This will require an amendment to the RTFO rate provisions of the 2007 Act, to implement the proposed EU Renewable Energy Directive requirement.

The Biofuel Study recommends further examination of the potential availability and supply of RFNBO and recycled carbon fuels (RCFs).

**Proposed Action:** Subject to adoption of the amendments to the EU Renewable Energy Directive, introduction of a sub-target obligation for supply of RFNBO in 2025, including an appropriate buy-out charge, subject to consultation and establishment of the necessary delegate acts. Further research and consultation to be carried out as to the projected availability and projected annual increase in the RFNBO contribution rate required in the years from 2025 to 2030.

#### Observations sought:

What should be the key considerations – social, economic, and environmental, in establishing in 2025 a subtarget for renewable fuels of non-biological origin (RFNBO) and associated buy-out?

#### ADDITIONAL CERTIFICATES TO INCENTIVISE CERTAIN RTF SUPPLY

From 2023 authorisation has been granted for additional certificates to be granted for supply of specified RTFs, in specified sectors, with the aim of targeted incentivising of supply.

The Regulations and specifications were the subject of extensive consultation with stakeholders and the public, and these can be reviewed and adjusted over time.

**Proposed Action:** The supply in 2023/2024 of the specified fuels, which qualify for additional certificates, will be reviewed against the objective for incentivisation, the rationale for which will also be

considered, so that any necessary adjustments can be consulted upon in 2024 and implemented for the 2025 obligation period.

#### Observations sought:

What considerations should be included in this review – including possible *social*, *economic*, *and environmental impacts?* 

#### **Section 3: Supporting compliance**

#### **EU GREENHOUSE GAS INTENSITY REDUCTION TARGET**

Article 7a of the EU Fuel Quality Directive (FQD) requires fuel suppliers, at a minimum, to reach a 6% reduction in lifecycle carbon intensity (lifecycle emission) of fuel supplied to the transport sector, in comparison to a fuel baseline standard. In 2021, in aggregate, suppliers failed to meet the EU FQD target 6%, only achieving 3%. This is currently estimated to be 3.8% in 2022.

It is projected that with planned increases in the RTFO rate, in aggregate, this FQD target may be achieved by end 2024 or in 2025 and in the years after 2025 Ireland will exceed the target.

The 2021 Policy Statement committed to examining possibilities to strengthen compliance enforcement of the EU FQD requirement. For financial penalties to be sufficiently dissuasive they would need to be much higher than currently provided for and may require supporting primary legislation. Such a penalty increase would need to be introduced on a graduated basis over time to avoid any resulting sharp cost impact on consumers through increased pump price.

However, in the absence of the suggested increased FQD penalties, the current gradual process of RTFO rate increase may be a lower impact option for a managed achievement of the FQD target by 2025.

Policy consultation stakeholder responses in 2022 broadly supported the RTFO to achieve this target rather than penalties and fines.

Proposed changes to the EU Renewable Energy Directive currently being negotiated under the EU Fit for 55 could see the establishment of one overarching target for RTF (and low carbon fuels) of at least 13% or higher in GHG emission reduction. This will be kept under review regarding possible impacting changes to the RTFO.

**Proposed Action:** Subject to the adoption of the EU revision of the Renewable Energy Directive, expected in 2023, to consider implementing any necessary changes to the RTFO and the RTFO rate in 2025, including consideration of new greenhouse gas intensity targets and compliance enforcement that is proportionate and dissuasive.

#### Observations sought:

Would overall compliance be better achieved if the renewable transport fuel obligation were solely based upon a greenhouse gas intensity reduction rather than the current renewable energy obligation?

We believe that the existing RTFO system is sufficient to meet the required targets. As can be seen from the 2022 policy consultation stakeholder responses there was broad support for the RTFO in its current form to achieve the targets.

Would you agree with introduction of a greenhouse gas intensity reduction basis for the 2025 obligation period?

Not until at least 2027.

# SUSTAINABILITY AND GHG CRITERIA COMPLIANCE - EU DATABASE AND SUPERVISIONS OF CBS

NORA (and SEAI for non-transport renewable energy consumption) will be responsible for supervision of certification bodies conducting audits under voluntary schemes, in cooperation with all other Member States.

In 2023 the European Commission established the Union Database for RTFs, and fuel suppliers are obligated to input information to the EU Database on RTFs supplied.

These new elements in the EU oversight of sustainability and GHG criteria compliance are continuing to be embedded within the compliance oversight system, for all concerned - economic operators, voluntary schemes, certification bodies and Member States' competent authorities.

The Biofuel Study Report 2022 recommends continued progress in implementing these new supervision elements, as key to safeguard against the risks around sustainability of biofuels supply.

**Proposed Action:** The system administrator and Departments will continue to engage at an EU level with the European Commission and with stakeholders to ensure implementation of the EU supervision updates.

#### Observations sought:

From your perspective, where does the focus need to be over the next two years concerning the implementation of the EU measures for oversight of sustainability and GHG reduction for renewable energy in transport?

We agree with the introduction of EU Union Database if it is properly policed. In order to ensure complete sustainability and GHG criteria compliance it is imperative, especially regarding waste-based biodiesel that only feedstocks, either within EU / UK or are classified as wastes in the country of origin be permitted to be included in the waste framework. This will reduce the possibility of fraud.

#### SAFEGUARDING AGAINST RISK OF FRAUD AND OTHER INDIRECT EFFECTS

The Climate Change Advisory Council in its 2022 Annual Review recommended ceasing the current policy of increasing biofuels under the transport sectoral targets of the climate action plan, considering the potential high ILUC-risk impacts of this policy.

The Biofuel Study Report 2022 addresses the concerns of the Council within its findings and recommendations for further work. In particular,

- To study how indirect emissions could arise, further work is needed to examine this in greater detail, considering Ireland's current reliance on UCO and tallow feedstocks
- To examine the indigenous market and potential for deliberate 'downgrading' of category
   3 tallow to category 1, and,
- To Investigate first-hand how fraudulent activity may be carried out.

**Proposed Action:** In 2023 the Department will establish a working group to progress a voluntary vulnerability assessment of the current and projected future biofuels supply into Ireland, with a view to identifying scope for risk of biofuel fraud (leading to high ILUC-risk) and other indirect impacts and making recommendations concerning improvements.

#### Observations sought:

Concerning the proposal to establish a working group and a voluntary vulnerability assessment concerning biofuel fraud risk:

Do you agree with this approach in addressing the recommendations of the biofuel study?

We are not in agreement with this approach:

1. There are no issues with ILUC in Ireland as all biofuels consumed are waste-based with little to no crop based biofuels entering the system.

2. With regard to CAT3 Tallow there are currently several other uses for this feedstock,

e.g., HVO in Finland where it is double counted, as well as the oleochemical industry.

In addition to this the value of CAT3 is far in excess of CAT1 and there is no incentive to

#### downgrade CAT3 material.

If so, what are your views concerning the scope of the assessment?

#### **HIGH-ILUC-RISK**

Currently the permitted level of supply of high ILUC-risk biofuels is capped as the amount supplied in 2019 by the companies who supplied it unless it is certified as low ILUC-risk.

The volume contribution to the RTFO rate from high ILUC-risk biofuel will be reduced (from the amount supplied in 2019 by the companies who supplied it) to 0% by 2030 in line with the EU Renewable Energy Directive. This provision in the Directive does not apply to biofuels from feedstocks which are certified as low ILUC-risk.

The indicative trajectory of annual reduction of high ILUC-risk biofuels is set out as follows:

	2023	2024	2025	2026	2027	2028	2029	2030
% Of 2019 amount	100	90	75	60	45	30	15	0
Energy that can be sourced from High ILUC feedstock (TJ)	48.96	44	37	29	22	15	7	0

commencing in the 2024 obligation period.

#### **Observations sought:**

Do you agree with the proposed trajectory of decrease in high ILUC-risk biofuels supply to 2030, as set out in the policy statement?

Yes, we agree with the proposed trajectory.

Should this be reduced annually, or every 2 or 3 years? Please see response below.

Should the reduction to 0% be accelerated, e.g., by 2025 or earlier?

Yes, we are of the opinion that it should be accelerated rapidly as it is imperative to remove the high ILUC risks and to ensure that only sustainable biofuels are manufactured and consumed.

# Section 4. Ongoing review of evidence and research supporting the **Policy**

The ongoing development of the Renewable Transport Fuel Policy involves extensive public and stakeholder engagement. The Policy is reviewed every two years to ensure that it remains iterative and responsive to changes and developments under the national policy or European obligations.

Regarding the considerations of the Minister in developing and implementing RTF policy, there is ongoing review of the evidence base required to support this including:

- the rate of actual (versus projected) renewable transport fuel supplied/consumed each year
- the quantum of supply of crop-based biofuels and high-ILUC-risk biofuels below required levels
- GHG emission savings on a lifecycle basis
- the rate of actual (versus projected) renewable energy share in transport
- air quality and non-carbon emissions within EU CAFÉ requirements
- price of fuels and biofuels to gauge possible pump price impact on consumers

In addition, discrete studies can provide a snapshot or deep dive into specific aspects related to the RTF policy.

#### The Biofuel Study Report 2022

The Biofuel Study Report by Byrne O'Cleirigh states that 'there is a complex relationship between the requirements of Renewable Energy Directive and Ireland's national transport targets (B20 and E10).' Rather than stating that these are incompatible, the Report suggests that this presents challenges for administration of both EU and National targets through one renewable transport fuel obligation, in the 2007 Act.

The National target for supply of biofuel for B20 by 2030 under the Climate Action Plan, will inevitably incentivise the continued and further supply of biofuels from UCO in transport consumption in the State. However, under the EU Directive the 1.7% limit on biofuels from UCO and tallow is not applied to the overall renewable energy share (RES) reported - encompassing all the renewable energy consumed in the state – including transport, heating, and power generation sectors.

The report concludes that in order to ensure that Ireland meets the EU requirements in the context of ambitions national targets for biofuels, it will be necessary to both increase the share of renewable electricity in transport (delivering on CAP EV targets) and incentivise the supply of advanced biofuels (i.e. Annex IX listed feedstocks other than UCO and tallow).

#### **Proposed Actions:**

The Department in 2023 will establish a working group to progress further examination and research building on the conclusion of the Biofuel Study Report 2022 to address the challenge of achievement of EU renewable energy obligations and ambitious domestic targets for biofuels. This would include the contribution of advanced biofuels, RFNBOs and potential renewable electricity, in future road, aviation and maritime transport consumption, considering research and analysis in Europe, the UK and beyond as recommended in the Biofuel Study Report 2022.

In collaboration with the NORA, the Department in 2023 will review the indicators for ongoing assessment of impacts of changes to the RTFO as proposed in this policy statement, considering possible socio-economic and distributional impacts.

#### **Observations sought:**

Concerning the proposal for a working group to progress further examination and research, addressing the policy challenge of EU obligations and domestic targets:

Do you agree with this approach in addressing the conclusion in the Biofuel study?

We are not in agreement with the conclusion of the biofuels study. With regard to UCO and Tallow as feedstocks, the entire purpose of establishing the EU Database was so that the 1.7% limit could be removed. This "soft cap" was introduced due to the prevalence of fraud in UCO, which the EU database will address. As well as this, it has always been the intention in Ireland to report the 1.7% limit, (3.4% ec), as part of EU compliance however significantly higher levels of penetration are required to meet the national climate action plans. There is no reason to prioritise the incentivization of advanced biofuels over UCO & Tallow, which currently provide a vast majority of the compliance under the RTFO. Consideration needs to be given to not only the availability of advanced feedstocks in quantities necessary to achieve the required targets but also the existing technology and the potential increased costs of advanced biofuels over existing waste-based biofuels.

It is important to understand that the GHG emission savings from biofuels produced from UCO and Tallow are currently higher than any other biofuel on the market and there is little literature surrounding the possible GHG savings from advanced biofuels other than POME, the source of which is highly questionable.

If so, what are your views concerning the scope of the examination and research needed? As answered above.

In addition to the policy indicators, evidence and research identified in this policy statement, are there other evidence-based inputs which need to be considered to support future policy development and implementation?



# **Consultation Draft Renewable Transport Fuel Policy 2023-2025**

March 2023



#### **Contents:**

# INTRODUCTION POLICY CONTEXT RENEWABLE TRANSPORT FUEL OBLIGATION (RTFO)

#### **SECTION 1: REVIEW OF THE RTFO SCOPE**

- I. Rail Transport
- II. Renewable electricity in road and rail transport
- III. Aviation & Maritime Fuels
- IV. Non-Road Mobile Machinery

#### **SECTION 2: RTFO RATE, TARGETS, AND LIMITS**

- I. The RTFO Rate
- II. E10 Mandate
- III. Advanced Biofuel Obligation
- IV. Renewable Fuels of Non-Biological Origin (RFNBO)
- V. Additional Certificates to Incentivise Certain Renewable Transport Fuel (RTF) Supply

#### **SECTION 3: SUPPORTING COMPLIANCE**

- I. EU Greenhouse Gas (GHG) Intensity Reduction Target
- II. Sustainability and GHG Criteria Compliance European (EU) Database & Supervision of Certified Bodies
- III. Safeguarding Against Risk of Fraud and Other Indirect Effects
- IV. High Indirect Land Use Change (ILUC) risk

# SECTION 4: ONGOING REVIEW OF EVIDENCE AND RESEARCH SUPPORTING THE POLICY

#### **Introduction**

This draft policy statement concerns the supply of renewable transport fuels (RTF) and the proposed actions over the next two years concerning the renewable transport fuel obligation (RTFO) to achieving greater renewable energy in transport in line with European requirements and national climate action objectives.

It is intended to provide policy certainty for relevant economic operators and stakeholders who are central to the delivery of emission reduction targets in the transport sector.

#### **Policy Context**

To achieve a 50% reduction in Carbon emissions in the transport sector by 2030 the Climate Action Plan (CAP) sets out a range of measures, including increasing sustainable mobility, public and active travel, electrification of road transport and increased biofuels in transport as a transition measure.

The CAP biofuel target is for at least B20 (biodiesel equivalent) in diesel and E10 (Ethanol) in petrol by 2030 (with an interim B12/E10 by 2025 target). Modelling analysis of the Climate Action Plan target projects a 1.08 MtCO2eq abatement saving by 2030 from this biofuel target (13.7% of the transport sector carbon abatement by 2030)

The CAP also has targets and actions to incentivise greater production, supply, and use of biogas, such as biomethane and green hydrogen, with potential uses across economic sectors including in transport. Among the key considerations for greater use of renewable energy is the appropriate hierarchy of use of renewable transport fuel (RTF) across the different transport and economic sectors.

Acknowledging the cross sectoral and interdependencies of energy policy implementation, engagement at a Departmental and Agency level is ongoing regarding policy coordination, reducing regulatory burden, and learning from best practice.

In 2022 the Department of Transport published the Report of a Biofuel Study which reflects upon the availability and sustainability of biofuels in meeting future demand for consumption in transport. This Study sets out a number of recommendations concerning the RTF policy which are considered in this policy statement concerning next steps for the RTFO.

Policy on biodiversity and air quality, regarding potential risks and impacts for public health, will have ongoing relevance for policy development concerning the increased supply and use of renewable transport fuels both in a European and national context.

The European recast Renewable Energy Directive came into effect in July 2021. The EU Fit for 55 proposals launched in July 2022 are at varying stages of deliberation among Member States, the Commission, and the Parliament. Future targets for emission reduction and renewable energy uptake signaled in these proposals will exceed current targets in the road transport sector and new targets will be established for aviation and maritime sectors.

Similarly, proposed changes in European taxation and energy regulation across the other economic sectors will be relevant to future RTF policy development and implementation here in Ireland.

Research is continuing to support an evidence-based development of policy concerning renewable transport fuels and to support the implementation of the policy measures.

#### The Renewable Transport Fuel Obligation (RTFO)

The means to obligate fuel suppliers to supply renewable transport fuels (including biofuels) is the obligation set out under Part 5A of the National Oil Reserves Agency Act 2007.

To implement the measures set out in the Renewable Fuel for Transport Policy 2021-2023, a number of legislative changes<sup>1</sup> have been made to support compliance by economic operators in achieving the RTF policy and regulatory targets and obligations. Among these changes are:

- A new advanced biofuel obligation rate and corresponding buy-out charge
- A cap on the supply of the amount of high-ILUC-risk biofuels permissible under the RTFO scheme at 2019 levels by the companies who supplied them in 2019, and a rate of reduction of this amount to 0% by 2030
- New powers to the National Oil Reserves Agency (NORA) to supervise certification bodies
- An obligation placed on economic operators to supply information to the European Union database which is currently being operationalised
- A minimum % ethanol in petrol specification
- An extension of the Agency powers to grant additional certificates for specified RTFs in petroleum products and in different transport sectors

This Policy Statement will form the basis for actions to be taken over the next two years from 2023 to 2025, based upon a consultation in early 2023. The implementation of the policy will also be consulted upon in 2024.

The following Sections 1-3 of this Policy Statement will indicate the further proposed actions under the RTFO over the coming years.

Section 4 sets out further proposed actions required to develop the evidence-base to support policy implementation and policy.

5

<sup>&</sup>lt;sup>1</sup> S.I. No. 350/2022 - European Union (Renewable Energy) Regulations (2) 2022 S.I. No. 680 of 2022 European Union (Renewable Energy) (Amendment) Regulations 2022 Oil Emergency Contingency and Transfer of renewable Transport Fuel Functions Act No. 2 of 2023

### **Section 1: Review of the RTFO Scope**

Currently the scope of the RTFO relates to road transport fuels in relevant disposals of petroleum products. RTFs supplied in other sectors in transport, such as non-road mobile machinery, aviation or maritime can be eligible for RTFO certificates, but they are not included within the obligation.

As indicated in the Policy Consultation 2022, the merits of extending the scope of the RTFO could be considered further. Among the key benefit would be to further contribute to decarbonisation of the transport sector.

#### RAIL TRANSPORT

The transport target for renewable energy in the EU Renewable Energy Directive is the share of RTFs in the final consumption of energy in the road and rail transport sectors. However, Ireland's RTFO as provided for under the 2007 Act concerns only road transport. Subject an amendment to the definition of 'relevant disposals' in the 2007 Act, the scope of the RTFO could be extended to rail transport fuels, mirroring the scope of the EU Renewable Energy Directive.

Irish Rail is the monopoly heavy rail operator in Ireland with a statutory function to provide public transport services in the State. Irish Rail is an RTFO account holder by virtue of supplying diesel for use by Dublin Bus and Bus Éireann.

A B7 blend in diesel has recently been introduced in 2023 for use by CIE (Coras Iompair Eireann) across all its companies' operations – bus and rail, which will contribute towards achieving the RTFO.

The timing of the inclusion of supply for use in rail within the RTFO will have regard to ongoing consideration by the Company concerning the possibility of increasing RTF blending in future years.

It is noted that Irish Rail is also examining the future potential of green hydrogen energy use for certain services. Together with the potential for Hydrogen buses in the short-term, this could be a future means to meet a separate RFNBO sub-target longer term.

**Proposed Action:** With consideration to the initial steps that have been taken by CIE this year at an operational level to comply with the RTFO, and the need for consideration of primary legislation to extend the scope of the definition of 'relevant disposal' for the purpose of the RTFO, the timeline for the proposal to include rail within the RTFO will be extended to 2025.

#### Observations sought:

A review to include rail transport fuel within the scope of the RTFO by 2025 is

proposed: What do you think are the key considerations to be considered

within this review?

Greenergy Ireland believes rail should be part of the RTFO which ensures Ireland comply with the Renewable Energy Directive (RED) II and recently agreed RED III. The UK have successfully mandated rail transport as part of the UK RTFO since 2013 by obligation fuel supply which includes non-Road Mobile Machinery (NRMM) as per Regulation (EU) 2016/1628.

Do you agree or disagree with the proposed review timeline, and reasons why?

Rail should be included by at least 2025 or earlier if primary legislation can be updated in time for 2024. Decarbonising rail transport requires a holistic approach and a combination of renewable fuels and pathways. Hydrogen will contribute to this decarbonization alongside renewable electricity and high biofuel blends such as B20 from Ucome, and HVO.

#### RENEWABLE ELECTRICITY - IN ROAD AND RAIL TRANSPORT

The EU Renewable Energy Directive allows additional counting for renewable electricity used in road (4 times credit) and rail (1.2 times credit) in transport. For the purposes of the reporting under the EU Renewable Energy Directive, the Sustainable Energy Agency of Ireland (SEAI) estimate the amount of renewable electricity consumed in transport in the State in different sectors.

The electrification of transport through ambitious EV targets in the climate action plan, is a pathway for greater renewable electricity in transport consumption. Supply of electricity in road transport is not obligated nor renewable electricity supply rewarded under the RTFO currently, and the last Policy Statement included an action to examine the possibility of doing so.

Production and supply of renewable electricity for consumption across all economic sectors is already supported through the renewable electricity support scheme (RESS) and public service obligation (PSO) levy, with Climate Action Fund grants for EV purchase and infrastructure supporting increased transport consumption.

Furthermore, it would be challenging to quantify, for the purpose of the RTFO, the transport consumption of renewable electricity through EV charging in private homes (roughly 70% of charging) separate to other household electricity consumption, for consumers without smart electricity meters and related smart services. It is noted that the renewable heating obligation (RHO), which is in development, will not include renewable electricity.

It is likely that extending the RTFO to renewable electricity in transport would serve as additional to existing market-based supports and incentives for renewable electricity for renewable electricity production and supply that would have occurred in transport anyway - including EVs in road transport and electricity supply for rail transport by Irish Rail and LUAS currently, and in the future MetroLink. Electricity is already on a pathway to decarbonisation and is expected to be at least 80% renewable by 2030 under the Climate Action Plan.

In the Netherlands, there is a model whereby RTFO certificate/credit has been extended specifically to benefit investors in large scale EV infrastructure development, whereby the credit can be traded with obligated RTFO/fuels suppliers. If implemented in Ireland, this could have benefit for EV infrastructure investment (relating to roughly 30% of charging), but would displace biofuel blending activity, and would result in the RTFO rate having to be increased further to offset the biofuel blending displacement.

No Further Action is proposed.

#### Observations sought:

Following consultation and review, it is intended that electricity used for transport would not be included in the RTFO:

Do you agree that existing supports for cross-sector renewable electricity supply are sufficient to incentivise renewable electricity in transport consumption?

As it has been stated publicly that electricity is cheaper than diesel or biofuel, Greenergy Ireland believe there is no logical or economic reason to further subsidies electricity as it will encourage inefficiency in its supply. Also, as the certs of origin system is separate to the RTFO, this may cause confusion.

If you agree, do you think that there is merit in reviewing this position again in 2025 or a later date?

Do you think that models such as in the Netherlands should be explored further for the benefits for electrification of transport?

The main barriers that impede the widespread transition to electric charging as a fuel by the forecourt industry are as follows:

- 1. The structure of the electricity market. The electricity market is highly regulated and structured such that the power in the market sits with the generators and the grid operator. This was evidenced through the Ukraine crisis which resulted in several suppliers going out of business or exiting the market, all while the generators achieved record profits. The generators have guaranteed demand and capacity contracts with the grid, the grid operator demands guaranteed capacity and offtake contracts from the supplier these cannot be passed into a nascent market where demand is low, unpredictable, and mobile.
- 2. The capital cost of infrastructure for EV charging is extremely high with a very low and long potential for return. The cost of capital is high and predicted to increase into the future which adds to negative weighting on investment cases. Private companies also must compete with Semi State companies that are being supported by funding models that are inaccessible to the private sector. Most of the costs incurred are network access capital costs and network capacity charges.
- 3. Space is limited on a forecourt and acts as a significant constraint this could be overcome if there was a defensible business case.
- 4. Proximity to network the electricity network was not constructed to service transport there is a significant cost to connect the key road network infrastructure, i.e., forecourts to the electricity network.
- 5. The payback from sales in the store are not adequate to payback on investment this needs to be stated as it is repeated as a reason to support investment. A person will only buy one cup of coffee and one thing to eat regardless of whether they are onsite for 5 mins (with traditional fuels) or an hour, or more for EV charging. They will tie up the charging point and a potential parking space thus stopping another customer from buying. The existing fuel suppliers need to be included in the electricity supply value chain to ensure service provision.

The incentives needed to support the transition of the traditional forecourt to EV electric charging points are:

- 1. Capital Supports for charging infrastructure
- 2. A dynamic capacity tariff to avoid penal charges for an underused asset, reflecting intermittent high peak usage.
- 3. A network connections policy that does not weight the forecourt with the cost of the extension to the electricity network.
- 4. A specific EV electricity supplier license that allows easier access to the electricity supply market for entities involved in EV charging provision.

#### **AVIATION AND MARITIME FUELS**

Under the EU Fit for 55 packages of legislative proposals, there are two impacting directly on the decarbonisation of fuels used. Both the so-called "Refuel EU" for Aviation and "Fuel EU" for Maritime regulations will have direct effect, and the details are subject to negotiation at a European level.

In the Fuel EU Maritime regulation, there is an obligation on shipping companies concerning: 1) a GHG reduction target on energy produced on board ships (2% in 2025, rising to 75% in 2050) and 2) an onshore power (OPS) requirement, which will tie in with proposed EU Alternative Fuel Infrastructure Regulation obligations on Member States.

In the ReFuel EU Aviation proposal, there is an obligation on fuel suppliers to ensure that all aviation jet kerosene made available contains a minimum mandated level of SAF (minimum 2% in 2025 rising to 63% in 2050, and a 0.7% RFNBO sub-target in 2030 rising to 28% in 2050). The proposal also provides for a transitional period, commencing from 1 January 2025, during which, for each reporting period (annual), an aviation fuel supplier may supply the minimum mandated share of sustainable aviation fuel (SAF) as a weighted average over all the aviation fuel it supplied across Union airports for that reporting period.

Currently the RTFO provides for RTFO certificates to be granted for supply of RTF in aviation and maritime fuels, to incentivise supply of RTF in these transport sectors.

Stakeholder responses to the Policy Consultation in 2022 suggested that any mandate for supply of advanced or development renewable fuels, e.g., for use in these marine and aviation sectors, alone would have little impact on their supply if there is low or no availability of these fuels and their feedstocks. This may point to a need for support or incentives targeting production of these RTFs, which is outside the scope of the RTFO.

**Proposed Action:** To review the demand and supply of SAF and RTF in maritime fuel within the context of RTFO certificates issued or the draft regulations for additional RTFO certificates, as part of the evidence base for any future policy consideration within the context of implementing future EU Regulations.

#### **Observations sought:**

What incentives would you like to see for supply of renewable transport fuels in aviation and maritime fuels?

All types of SAF should be incentivised but HEFA should be capped so that feedstocks are not diverted from the road transport sector where they are deployed most successfully. For example, biodiesel plant yields are higher than HEFA plants meaning that less raw material is required to produce the same amount of end product. Additionally, the carbon intensity of diesel is higher than aviation kerosene meaning that displacing diesel achieves greater carbon savings.

In maritime, biodiesel can be used effectively without further processing. Biodiesel is already compatible with existing engines meaning no capital investment required and carbon savings can be achieved now. In fact, maritime vessels can operate on lower quality biodiesel than in road transport further increasing emission savings by negating the need to pre-blend or distil the biodiesel to increase quality.

What do you see as the key challenges or enablers to incentivise the supply of renewable transport fuels in aviation and maritime sectors?

For SAF, there are a broad range of technologies and feedstocks that can be used but require investment. These investments can be incentivised by sub-mandates which obligate suppliers to supply these types of novel pathways such as RFNBOs and Power to Liquids (PtL). This approach works, proven by the development fuel obligation in the UK RTFO. As long as government set achievable targets and long-term trajectories then industry will find a way to comply and make these new fuel types. A similar approach applies for maritime. Although biodiesel can be used now it alone will not be able to decarbonise shipping and road transport sectors completely. Therefore, novel pathways for maritime should also be incentivised such as RFNBOs and ammonia.

#### **NON-ROAD MOBILE MACHINERY**

Currently the relevant disposals for the purpose of the RTFO relates to road transport fuel only, and non-road mobile machinery (NRMM) is outside the scope of the RTFO.

However, biofuels blended with gas oil, or in liquified petroleum gas (LPG), which is used in NRMM are eligible for RTFO certificates, as they both fall within the definition of a renewable transport fuel.

The gas oil market is roughly the same scale as the petrol market, i.e., about 1 million litres per year, in the State. It is estimated by the NORA that to apply the RTFO to gasoil used for transport purposes could yield a 0.9MT CO2eq abatement between now and 2030.

To implement these carbon reduction benefits through the RTFO, the scope of the obligation and the definition of relevant disposals would need to be expanded to include NRMM. Applying the full RTFO rate would achieve the possible carbon reduction benefits estimated above. Alternatively, a lower percentage contribution NRMM toward the RTFO rate would achieve part of this carbon reduction benefit.

While there are benefits from a climate perspective, consideration is also required as to the impacts or consequences within in the economic sectors using NRMM. The balance needs to be assessed between the benefits of carbon reduction lost against the impact on consumers of gasoil and users of NRMM, in terms of price impacts.

The ambitious targets for anaerobic digestion biomethane production under the climate action plan are also noted in this context along with future potential for NRMM to be powered by these alternative energy sources.

**Proposed Action:** Further consideration is to be given to inclusion of the category of NRMM in the scope of the RTFO, in the context of decarbonising hard to abate sectors, and the timeframe of implementing emission ceilings within the second carbon budget, which commences in 2026.

#### **Observations sought:**

Do you agree with the inclusion of non-road mobile machinery (NRMM) within the RTFO?

Greenergy Ireland believes where possible that all forms of transport should be obligated. We support the introduction of a mandate for blending biofuels into Sulphur Free Gasoil (SFGO) used for non-road mobile machinery (NRMM) with the RTFO.

Details on how this would be regulated would need to be determined. In the UK, there is a presumption that the SFGO is used for NRMM unless a supplier can satisfy the administrator to the contrary. This is to minimise administrative burden by not placing a requirement on the supplier to know the end use for their gasoil supply.

A similar approach could be taken in Ireland which would result in a blending obligation for the NRMM sector, with the remaining SFGO volumes exempt. As SFGO is obligated under the Fuels Quality Directive (FQD) a blending mandate under RED would improve compliance under FQD by  $\sim 1.03\%$  to  $\sim 4.38\%$ .

If this were introduced as a reduced RTFO rate initially what contribution would be appropriate - 75%, 50%, 25% or other?

Greenergy Ireland does not support a reduced RTFO rate and believes that NRMM should be 100% obligated.

In your view what should be the key considerations for this policy proposal?

That NRMM is fully obligated.

What is the appropriate balance of impacts including social, economic, and environmental considerations?

If there are social or economic impacts for NRMM users, the government should decide on phased subsidies or grants. Obligating NRMM will have a positive environmental impact.

### Section 2: RTFO rate, targets, and limits

#### THE RTFO RATE

From 2023 the RTFO rate is expressed in energy terms, rather than in volume terms, previously.

In line with meeting Climate Action Plan targets and EU Fuel Quality Directive requirements (see next section), in 2022 the RTFO rate was increased from 12% to 15% by volume as a % of road fossil fuel. In January 2023, the RTFO rate was further increased to approximately 17% by energy (as a % of road fossil fuel)

In 2022, approximately 307m litres (9.6 PJ) of liquid biofuels and 0.04 PJ of gaseous fuels were placed on the market, which was an increase from 246m litres (7.6 PJ) of liquid biofuels and 618k Nm3 (0.2 PJ) of gaseous fuels in 2021.

The Biofuels Study Report 2022 estimates 72-78m litres of bioethanol and between 570-730m litres of biodiesel/HVO could be required to meet the Climate Action Plan transport targets by 2030.

In line the Climate Action Plan targets, which are broadly supported by stakeholder responses in the Policy Consultation 2022, it is proposed to increase the RTFO rate annually. The last Policy Statement set out an indicative projected trajectory for annual increases in the RTFO to 2025, and up to an estimated 38% by energy rate from 2030.

The trajectory to 2025 has been reviewed and adjusted, supported by analysis by the NORA RTFO Team considering actual supply to date and the impact of actual and planned changes in the contributory elements within the RTFO.

The trajectory of increase of the RTFO annually to 2030 as a % of road fossil fuel is set out in the table below. While the projected figures appear high this reflects the assumptions being made on potential for 15% disposal using certificates from previous years, and multipliers that will be applied to actual volumes placed on the market. The underlying assumption remains as an E10/B20 blend.

	2024	2025	2026	2027	2028	2029	2030
RTFO	21%	25%	29%	34%	39%	44%	49%

The RTFO is expressed as a percentage of road diesel and gasoline and is set at a level that is forecast to achieve both domestic targets (E10 & B20) and EU requirements. The above penetration of renewable fuels in the transport market is estimated to deliver over 1  $MtCO_{2eq}$  emission savings in 2030.

Transport sector modelling is complex, and several assumptions are relied upon when forecasting the RTFO. For example, the diesel - gasoline mix, the rate of double counting and additional counting, the feedstock mix, etc. The further into the future the model forecasts, the more uncertain the results become. To account for this and potential changes in the market, the trajectory should be updated annually.

**Proposed Action:** the RTFO rate is projected to be increased by 4.5 percentage points (from the current 16.5 to 21%) by energy for the obligation period 2024; and 4 percentage points (from 21% to 25%) by energy for the obligation period 2025, subject to statutory consultation on draft regulations; and in 2024 a further review and consultation is to be carried out on the indicative annual trajectory of increase in the RTFO rate 2026-2030.

#### Observations sought:

Given the proposed trajectory of increase in the RTFO to meet ambitious biofuel blending targets in the climate action plan, what steps can be taken within this policy to avoid future biofuel lock-in?

Greenergy Ireland welcomes the policy certainty that comes with an approach indicating the biofuel trajectory rate annually, which would allow suppliers to plan and invest.

The current annual review in December, for an increase the following month and lack of certainty around obligation causes more issues in terms of security of supply and supply planning.

The Irish transport fuel market is heavily dominated by diesel at 80% market share. As a result, appreciable increases in renewable blending targets will need to be met predominantly within the diesel pool. This will result in a requirement for a B10 blend as set out in Red III and even higher Biodiesel blends later this decade.

Just as the government legislated for E10, B10 will need to be legislated for.

What safeguards and mitigation could be included, within this policy or related Government policy, against possible socio-economic and distributional impacts, to ensure just transition?

#### **E10 MANDATE**

To incentivise E10 supply in the Irish market, the legal provision in Section 11 of the Oil Emergency Contingency and Transfer of Renewable Fuel Function Act 2023 provides for establishment of a minimum percentage ethanol in petrol placed on the market in the State, which can be reviewed and adjusted over time.

The conclusion from the Policy Consultation in 2022 was to ensure the right level of ambition was maintained in the policy on renewable transport fuels, requiring ongoing review.

The Biofuel Study Report 2022 recommends an examination of the possibility of increasing bioethanol rates.

It is understood that some other countries have a higher minimum requirement for ethanol in petrol, for example the Netherlands has an 8.5% biofuel requirement in petrol with a 7.5% minimum blend of ethanol and is seeing actual ethanol supply of up to and over 10% blended in petrol.

Therefore, the minimum percentage which will be specified in Regulations for the 2023 obligation period will also be kept under review to ensure that the actual supply of ethanol achieves Climate Action Plan target of E10 by 2025, while maintaining a crop-based biofuel contribution in Ireland's RTF supply within the EU Renewable Energy Directive limit of 2%.

**Proposed Action:** A review of the effectiveness of the 5.5% minimum percentage ethanol in petrol measure in meeting the CAP target with a view to adjusting the specification upwards by 2025, subject to consultation on draft regulations.

#### **Observations sought:**

To ensure achievement of the climate action plan target of E10 by 2025, it is proposed to keep under review the supply of ethanol, with a view to possible increase in the minimum percentage ethanol in petrol by regulation in 2025:

Do you agree or disagree with this approach? And why?

Greenergy Ireland disagrees with this approach. 5.5% minimum ethanol content in E10 is already above E5 and ensures continuity of gasoline supply to the Irish market in the event of any ethanol supply issues. As mandates increase, the market will likely blend more ethanol into E10 to meet obligations.

#### ADVANCED BIOFUEL OBLIGATION

In line with the targets for advanced biofuels supply set out in EU Renewable Energy Directive an advanced biofuel obligation rate was established in 2023 at 0.3% by energy, to incentivise the supply of biofuels from feedstocks listed in Annex IX Part A.

Also established in the 2023 obligation period is an advanced biofuel buy-out charge of €0.08 per/MJ shortfall and provision has been made that in future years 15% of the advanced biofuel obligation can be met with RTFO certificates obtained for supply of advanced biofuels in prior years.

EU targets for supply of advanced biofuel share of renewable energy in transport consumption are at least 1% in 2025 and 3.5% in 2030. To meet these requirements, the indicative rate of increase of the advanced biofuel obligation is set out in the following table.

The trajectory of increase of the advanced biofuel obligation annually as a % of gasoline and diesel supplied in the road transport market (other fossil fuels are LPG and CNG) is set out in the table below. Again, the projected figures appear high reflecting the assumptions being made on potential for 15% disposal using certificates from previous years, and multipliers that will be applied to actual volumes placed on the market.

	2023	2024	2025	2026	2027	2028	2029	2030
ABO	0.3%	1.0%	1.5%	2.4%	3.4%	4.7%	6.2%	7.9%

As for the RFTO rate projections, considering many assumption and variables underpinning modelling forecasts, the trajectory should be updated annually.

Increase in the advanced biofuel sub-target by 2030 has yet to be agreed in the proposals for revision of the European Renewable Energy Directive and could be 1% in 2025 and as high as 4.4% in 2030 (as expressed in the Renewable Energy Directive).

Incentivising the production and supply of advanced biofuels and relevant feedstocks may involve increasing the advanced biofuel obligation to higher rates than the EU requirement and setting the penalty (buy-out) for missing the target at a level more than the average EU penalty price.

It is clear from the Policy Consultation 2022 that, while there is support for increasing the advanced biofuel supply, there is also concern that targets and demand incentives move too quickly ahead of available production and supply of these advanced biofuels and feedstocks.

**Proposed Action:** the advanced biofuel obligation rate is to be increased by at least one percentage point (from 0.3% currently to 1.0%) by energy for the obligation period 2024; and by at least 0.5 percentage points (from 1.0% to 1.5%) by energy for the obligation period 2025, subject to consultation on draft regulations; and in 2024 a further review and consultation is to be carried out on the indicative annual trajectory of increase in the advanced biofuel rate 2026-2030.

#### **Observations sought:**

Do you agree with the proposal for a higher national advanced biofuel obligation rate, beyond EU requirements?

Greenergy Ireland does not recommend setting the national advanced obligation at a higher level that the EU requirements. We support the RED III approach. Prior to increasing this target further, a review of the commercial availability of suitable feedstocks needs to occur. The level of the obligation should be set relative to the availability of the advanced biofuels on the market. Currently there is limited supply of Annex IX Part A biofuels on the market.

If the obligation is to increase through the period to 2030 it would be recommended to ensure the increases are conservative at first, allowing technology development, increasing towards the latter part of the period, i.e., 2027 onwards. If the targets are set at a value that cannot be achieved by the fuel suppliers, this will only increase costs to the consumer due to the proposed high buy-out charge for noncompliance with the advanced biofuel targets.

What should the Department consider in setting the advanced biofuel obligation rate, including social, economic, and environmental impacts?

A stated key aim of the buy-out charge is to protect the end consumer from unforeseen price rises due to a biofuel market shortage. While Greenergy Ireland considers it appropriate that there are buyout charges rather than fines for non-compliance with BOS, Greenergy Ireland cautions the government regarding the level at which this buy-out is set.

The buy-out for advanced biofuels is 'heavy handed.' As stated previously there are limited supplies of advanced biofuels available on the market currently. Greenergy Ireland feels that it is unreasonable to expect the industry to agree to a high buy-out charge when the cost to meet the target in future is impossible to assess. Fuel suppliers have no insight into what the availability of advanced biofuels will be in 2023.

If a fuel supplier is in a position where they are non-compliant and therefore need to pay the buy-out, this will result in a significant cost increase to the consumer. Not only will the fuel supplier need to pay the buy-out, but the carbon tax paid by the fuel supplier will be higher due to the increased volumes of fossil fuel in the mix.

Greenergy Ireland recommends that the buy-out for advanced biofuels be set at the same level as the main biofuel obligation and not increased until there is a secure supply of advanced biofuel available.

#### RENEWABLE FUELS OF NON-BIOLOGICAL ORIGIN (RFNBO)

The proposals for targets in the EU Renewable Energy Directive under the proposed EU Fit for 55 sets out a sub-target for supply of renewable fuels of non-biological origin (RFNBO) in the transport sector of a binding 1.5% target by 2030 complemented by a non-binding target of 5.2%.

This could be implemented by a percentage contribution for RFNBO being established within the RTFO rate in 2025, with a corresponding buy-out charge. This will require an amendment to the RTFO rate provisions of the 2007 Act, to implement the proposed EU Renewable Energy Directive requirement.

The Biofuel Study recommends further examination of the potential availability and supply of RFNBO and recycled carbon fuels (RCFs).

**Proposed Action:** Subject to adoption of the amendments to the EU Renewable Energy Directive, introduction of a sub-target obligation for supply of RFNBO in 2025, including an appropriate buy-out charge, subject to consultation and establishment of the necessary delegate acts. Further research and

consultation to be carried out as to the projected availability and projected annual increase in the RFNBO contribution rate required in the years from 2025 to 2030.

#### Observations sought:

What should be the key considerations - social, economic, and environmental, in establishing in 2025 a subtarget for renewable fuels of non-biological origin (RFNBO) and associated buy-out?

RFNBOs are mandated to be at least 1% in 2030 therefore should be incentivised early to allow for investment in these pathways. The Commission estimates there to be about 10m tonnes of RFNBO production in 2030. RFNBOs have existed for several years, for example there was a small quantity reported into the UK RTFO in 2018 proving the technology works so needs government support to roll out further. In February 2023 the Commission published the delegated act on Green Hydrogen which sets out clear criteria on how RFNBOs, which includes hydrogen and derivatives, qualify, and meet the RED II and RED III requirements. One of the key focuses of the act is to define "additionality" to ensure that renewable electricity is simply not diverted from it's existing use.

#### ADDITIONAL CERTIFICATES TO INCENTIVISE CERTAIN RTF SUPPLY

From 2023 authorisation has been granted for additional certificates to be granted for supply of specified RTFs, in specified sectors, with the aim of targeted incentivising of supply.

The Regulations and specifications were the subject of extensive consultation with stakeholders and the public, and these can be reviewed and adjusted over time.

**Proposed Action:** The supply in 2023/2024 of the specified fuels, which qualify for additional certificates, will be reviewed against the objective for incentivisation, the rationale for which will also be considered, so that any necessary adjustments can be consulted upon in 2024 and implemented for the 2025 obligation period.

#### Observations sought:

What considerations should be included in this review – including possible *social*, *economic*, *and environmental impacts?* 

Greenergy Ireland want to highlight our strong concern regarding the Irish HVO and TME multiplier of 1.25x in addition to double counting. We believe that this approach is not the most efficient way to decarbonize the Irish transport sector. This has to do with the efficiency of the conversion technologies and the reduction potential of the different types of biofuels. Despite the use of the same raw materials, production of HVO is much more energy intensive and leads to less emission reductions when compared to biodiesel. A Studio Gear Up study commissioned by EWABA & MVaK found that UCOME (FAME, biodiesel) has the lowest production costs, the highest feedstock efficiency, the highest emission reduction performance and, consequently, the lowest carbon abatement costs. This means that when the deployment of UCO is limited, it is best deployed as UCOME in road and maritime transport.

Additional multipliers beyond double counting should only be applied to novel pathways using scalable feedstocks such as development fuel projects. Biodiesel can be used in higher blends, subject to government policy, which will deliver greater decarbonization than HVO in a more cost-effective manner.

The Irish government can stimulate increased biodiesel consumption through lifting the blend wall to B10, a possibility already included in the EU Fuel Quality Directive. This measure aligns to the RED III proposals whereby B10 is the main fuel standard. B10 increases emissions savings further with the

proposed 2030 target 13% GHG reduction from transport in mind.

Greenergy Ireland supports the RED III multipliers for advanced biofuels and Biogas supplied into aviation and Maritime sectors.

### **Section 3: Supporting compliance**

#### **EU GREENHOUSE GAS INTENSITY REDUCTION TARGET**

Article 7a of the EU Fuel Quality Directive (FQD) requires fuel suppliers, at a minimum, to reach a 6% reduction in lifecycle carbon intensity (lifecycle emission) of fuel supplied to the transport sector, in comparison to a fuel baseline standard. In 2021, in aggregate, suppliers failed to meet the EU FQD target 6%, only achieving 3%. This is currently estimated to be 3.8% in 2022.

It is projected that with planned increases in the RTFO rate, in aggregate, this FQD target may be achieved by end 2024 or in 2025 and in the years after 2025 Ireland will exceed the target.

The 2021 Policy Statement committed to examining possibilities to strengthen compliance enforcement of the EU FQD requirement. For financial penalties to be sufficiently dissuasive they would need to be much higher than currently provided for and may require supporting primary legislation. Such a penalty increase would need to be introduced on a graduated basis over time to avoid any resulting sharp cost impact on consumers through increased pump price.

However, in the absence of the suggested increased FQD penalties, the current gradual process of RTFO rate increase may be a lower impact option for a managed achievement of the FQD target by 2025.

Policy consultation stakeholder responses in 2022 broadly supported the RTFO to achieve this target rather than penalties and fines.

Proposed changes to the EU Renewable Energy Directive currently being negotiated under the EU Fit for 55 could see the establishment of one overarching target for RTF (and low carbon fuels) of at least 13% or higher in GHG emission reduction. This will be kept under review regarding possible impacting changes to the RTFO.

**Proposed Action:** Subject to the adoption of the EU revision of the Renewable Energy Directive, expected in 2023, to consider implementing any necessary changes to the RTFO and the RTFO rate in 2025, including consideration of new greenhouse gas intensity targets and compliance enforcement that is proportionate and dissuasive.

#### Observations sought:

Would overall compliance be better achieved if the renewable transport fuel obligation were solely based upon a greenhouse gas intensity reduction rather than the current renewable energy obligation?

Would you agree with introduction of a greenhouse gas intensity reduction basis for the 2025 obligation period?

A GHG reduction target targets the highest GHG% saving renewable fuels and incentivises existing production facilities to invest in lowering energy consumption. Waste-based biofuels are still supported due to have higher GHG savings than their crop counterparts so even with the removal of double counting waste-based biofuels are still the most sought after. RED II and RED III 2030 targets are expressed in energy terms and in GHG reduction terms however there can be scenarios where a GHG reduction mandate can lead to less renewable fuel volumetrically, so any GHG trajectory needs to consider the underlying physical supply without making it too difficult for the market to meet meaning

buyouts/fines are paid. Nevertheless, a GHG reduction mandate does work and is easier when determining transport's contribution to overall GHG reduction targets on a national level.

# SUSTAINABILITY AND GHG CRITERIA COMPLIANCE - EU DATABASE AND SUPERVISIONS OF CBS

NORA (and SEAI for non-transport renewable energy consumption) will be responsible for supervision of certification bodies conducting audits under voluntary schemes, in cooperation with all other Member States.

In 2023 the European Commission established the Union Database for RTFs, and fuel suppliers are obligated to input information to the EU Database on RTFs supplied.

These new elements in the EU oversight of sustainability and GHG criteria compliance are continuing to be embedded within the compliance oversight system, for all concerned - economic operators, voluntary schemes, certification bodies and Member States' competent authorities.

The Biofuel Study Report 2022 recommends continued progress in implementing these new supervision elements, as key to safeguard against the risks around sustainability of biofuels supply.

**Proposed Action:** The system administrator and Departments will continue to engage at an EU level with the European Commission and with stakeholders to ensure implementation of the EU supervision updates.

#### Observations sought:

From your perspective, where does the focus need to be over the next two years concerning the implementation of the EU measures for oversight of sustainability and GHG reduction for renewable energy in transport?

Greenergy Ireland supports Member States having more traceability on supply chains and renewable fuels being used to meet national mandates. The Union Database (UDB) also acts as a deterrent to fraud, albeit and small proportion of the market, and it gives the European Commission greater visibility of supply chains to help inform future policy decisions. It's a critical time for renewable fuels and how we transition to a lower carbon continent through decarbonising road transport (including HGVs), aviation and maritime

The voluntary schemes are responsible for training "economic operators" on UDB requirements, but the national authorities also have a role in ensuring that the UDB is fit for purpose and being used to its full potential.

NORA should engage with obligated parties to understand the market and discuss any concerns from both sides. Furthermore, the creation of a "whistleblower hotline", or similar, could be created in case there are any tangible suspicions of bad actors. There should be caution though that this isn't exploited just to inconvenience the alleged company and that any allegations made are backed with some evidence even though it may be limited in the first instance.

#### SAFEGUARDING AGAINST RISK OF FRAUD AND OTHER INDIRECT EFFECTS

The Climate Change Advisory Council in its 2022 Annual Review recommended ceasing the current policy of increasing biofuels under the transport sectoral targets of the climate action plan, considering the potential high ILUC-risk impacts of this policy.

The Biofuel Study Report 2022 addresses the concerns of the Council within its findings and recommendations for further work. In particular,

- To study how indirect emissions could arise, further work is needed to examine this in greater detail, considering Ireland's current reliance on UCO and tallow feedstocks.
- To examine the indigenous market and potential for deliberate 'downgrading' of category

- 3 tallow to category 1, and,
- To Investigate first-hand how fraudulent activity may be carried out.

**Proposed Action:** In 2023 the Department will establish a working group to progress a voluntary vulnerability assessment of the current and projected future biofuels supply into Ireland, with a view to identifying scope for risk of biofuel fraud (leading to high ILUC-risk) and other indirect impacts and making recommendations concerning improvements.

#### Observations sought:

Concerning the proposal to establish a working group and a voluntary vulnerability assessment concerning biofuel fraud risk:

Greenergy Ireland supports any measures to prevent fraud and reduce the risk of fraud. The implementation of the UDB will further support this and give authorities greater visibility of supply chains. The fraud risk isn't just present in feedstocks but also in pathways and GHG calculations so it's important to broaden the scope of the working group. For example, with additional multipliers planned in Ireland there could be attempts to classify a fuel as a certain type to take advantage of the multiplier.

Regarding the correctness of GHG calculations, the UK RTFO recently released a statement that the ISCC guidance was incorrect for HVO GHG calculations, specifically the emission factor for hydrogen which means that any HVO applications with a low carbon intensity will need to be supported with the GHG calculations to prove the right calculations and factors are being used. This is just an example whereby national authorities have the power and responsibility to act on renewable fuels to ensure a level playing field and the member states know exactly the GHG emissions of renewables being used to meet mandates.

Do you agree with this approach in addressing the recommendations of the biofuel study?

If so, what are your views concerning the scope of the assessment?

#### HIGH-ILUC-RISK

Currently the permitted level of supply of high ILUC-risk biofuels is capped as the amount supplied in 2019 by the companies who supplied it unless it is certified as low ILUC-risk.

The volume contribution to the RTFO rate from high ILUC-risk biofuel will be reduced (from the amount supplied in 2019 by the companies who supplied it) to 0% by 2030 in line with the EU Renewable Energy Directive. This provision in the Directive does not apply to biofuels from feedstocks which are certified as low ILUC-risk.

The indicative trajectory of annual reduction of high ILUC-risk biofuels is set out as follows:

	2023	2024	2025	2026	2027	2028	2029	2030
% Of 2019 amount	100	90	75	60	45	30	15	0

Energy that can be	48.96	44	37	29	22	15	7	0
sourced from High								
ILUC feedstock								
(TJ)								

**Proposed Action:** it is the intention to reduce the contribution of high ILUC-risk biofuels to the RTFO commencing in the 2024 obligation period.

#### **Observations sought:**

Do you agree with the proposed trajectory of decrease in high ILUC-risk biofuels supply to 2030, as set out in the policy statement?

Given Ireland has very limited use of biofuels produced from high-risk ILUC feedstocks such as palm oil, Greenergy Ireland would see no issue with these fuels being phased out from 2024 onwards. Coupled with this, more than 90% of Ireland's biofuel feedstocks are waste based, i.e., not based on crop feedstocks, therefore ensuring a high degree of sustainability within the sector.

Should this be reduced annually, or every 2 or 3 years?

#### Annually

Should the reduction to 0% be accelerated, e.g., by 2025 or earlier?

Yes, accelerated and gone by 2025

# Section 4. Ongoing review of evidence and research supporting the **Policy**

The ongoing development of the Renewable Transport Fuel Policy involves extensive public and stakeholder engagement. The Policy is reviewed every two years to ensure that it remains iterative and responsive to changes and developments under the national policy or European obligations.

Regarding the considerations of the Minister in developing and implementing RTF policy, there is ongoing review of the evidence base required to support this including:

- the rate of actual (versus projected) renewable transport fuel supplied/consumed each year
- the quantum of supply of crop-based biofuels and high-ILUC-risk biofuels below required levels
- GHG emission savings on a lifecycle basis
- the rate of actual (versus projected) renewable energy share in transport
- air quality and non-carbon emissions within EU CAFÉ requirements
- price of fuels and biofuels to gauge possible pump price impact on consumers

In addition, discrete studies can provide a snapshot or deep dive into specific aspects related to the RTF policy.

#### The Biofuel Study Report 2022

The Biofuel Study Report by Byrne O'Cleirigh states that 'there is a complex relationship between the requirements of Renewable Energy Directive and Ireland's national transport targets (B20 and E10).' Rather than stating that these are incompatible, the Report suggests that this presents challenges for administration of both EU and National targets through one renewable transport fuel obligation, in the 2007 Act.

The National target for supply of biofuel for B20 by 2030 under the Climate Action Plan, will inevitably incentivise the continued and further supply of biofuels from UCO in transport consumption in the State. However, under the EU Directive the 1.7% limit on biofuels from UCO and tallow is not applied to the overall renewable energy share (RES) reported - encompassing all the renewable energy consumed in the state – including transport, heating, and power generation sectors.

The report concludes that in order to ensure that Ireland meets the EU requirements in the context of ambitions national targets for biofuels, it will be necessary to both increase the share of renewable electricity in transport (delivering on CAP EV targets) and incentivise the supply of advanced biofuels (i.e. Annex IX listed feedstocks other than UCO and tallow).

#### Proposed Actions:

The Department in 2023 will establish a working group to progress further examination and research building on the conclusion of the Biofuel Study Report 2022 to address the challenge of achievement of EU renewable energy obligations and ambitious domestic targets for biofuels. This would include the contribution of advanced biofuels, RFNBOs and potential renewable electricity, in future road, aviation and maritime transport consumption, considering research and analysis in Europe, the UK and beyond as recommended in the Biofuel Study Report 2022.

In collaboration with the NORA, the Department in 2023 will review the indicators for ongoing assessment of impacts of changes to the RTFO as proposed in this policy statement, considering possible socio-economic and distributional impacts.

#### **Observations sought:**

Concerning the proposal for a working group to progress further examination and research, addressing the policy challenge of EU obligations and domestic targets:

Do you agree with this approach in addressing the conclusion in the Biofuel study?

Agree to an extent, but the 1.7% cap in the REDIII revision is a soft cap and can be increased as long as the Member State(s) approach the European Commission beforehand. It's currently not practical, or reliable to rely solely on electricity due to lower-than-expected vehicle uptake and infrastructure requirements to be able to install enough charging capacity at homes, businesses, forecourts, workplaces, and public spaces.

If so, what are your views concerning the scope of the examination and research needed?

High bio blends. B10 is the main diesel fuel standard in the revised REDIII, and trials are currently underway to prove the compatibility with a large proportion of the existing diesel fleet. Additionally, high blends of B20 from Ucome + in HGVs. In the short-term biodiesel can be used to displace diesel and B20/B30 has been used successfully in several countries and in multiple applications even B100. Long term a blend of HVO and biodiesel will be required to enable perfect engine operability all year round so research should be conducted in this area to increase carbon savings immediately.

A holistic view from government is required to ensure a level playing field and decarbonise all transport sectors together.

In addition to the policy indicators, evidence and research identified in this policy statement, are there other evidence-based inputs which need to be considered to support future policy development and implementation?

Studio Gear Up UCO conversion study showing where UCO and other waste lipids can be used most effectively to decarbonise transport holistically.





Hydrogen Ireland

Anne Toner

#### Q1. What do you think are the key considerations to be considered within this review?

While recognising the overarching EU objective of electrifying the rail network, as legislated for in the TEN-T Regulation, the role of hydrogen should be explored in circumstances when the electrification of rail is not technically or economically feasible.

#### Q2. Do you agree or disagree with the proposed review timeline, and reasons why?

In line with the timeline proposed, including rail within the scope of the RTFO by 2025, will require the existing fleet of trains to be operated on a more renewable fuel, while transitioning the fleet to new renewable technologies. During this transition phase green hydrogen should be used to produce low carbon liquid fuels to supply the existing diesel-powered engines, while also being made available for fuelling Hydrogen Fuel Cell trains on a trial basis.

In view of the existing Hydrogen FC technology, available both for new trains and for HFC retrofit in existing diesel trains, Irish Rail should be enabled to commence trials of HFC technology during the proposed review period. It is envisaged that onshore wind to hydrogen projects in Ireland can commence production by 2025. Offshore wind to hydrogen projects are expected to become operational between 2026 and 2030.

Use of hydrogen fuel cell technology should be facilitated and expanded in other public transport providers in the short and medium term, including Dublin Bus and Bus Éireann to which Irish Rail provides diesel as an RFTO account holder. It is noted that Dublin Bus already successfully operates 3 No. hydrogen FCEV double decker busses on the 105X route.

### Q3. Do you agree that existing supports for cross-sector renewable electricity supply are sufficient to incentivise renewable electricity in transport consumption?

The role of renewable hydrogen as a renewable fuel of non-biological origin (RFNBO) in road and rail transport is considered in observations provided by Hydrogen Ireland on Section 1 - Rail Transport and on Section 2 - Renewable Fuels of Non-Biological Origin (RFNBO). Renewable hydrogen is an RFNBO made by electrolysis of water using renewable electricity.

### Q4. If you agree, do you think that there is merit in reviewing this position again in 2025 or a later date?

# Q5. Do you think that models such as in the Netherlands should be explored further for the benefits for electrification of transport?

Nil

### Q6. What incentives would you like to see for supply of renewable transport fuels in aviation and maritime fuels?

A number of files proposed under Fit for 55 were recently provisionally agreed by EU legislators, with the effect of increasing existing targets for renewables in transport, plus specific sectoral obligations under ReFuel Aviation and Fuel EUMaritime. This is accompanied by obligations for these sectors under the EU ETS.

Aviation is seen as one of the hardest sectors to decarbonise, with zero-emission aircraft not expected for more than a decade. Sustainable fuel is seen as a route to start gradually reducing air travel's carbon footprint in the near-term. Hydrogen Ireland recognises the role renewable hydrogen can play in the production of low carbon liquid fuels such as Sustainable Aviation Fuel (SAF), which can be used as a drop in fuel to fossil-based Jet Kerosene. Under the ReFuel Aviation legislation, the. Fuel suppliers must ensure that 2% of fuel made available at EU airports is SAF in 2025, rising to 6% in 2030, 20% in 2035 and gradually to 70% in 2050. From 2030, 1.2% of fuels must also be synthetic fuels, rising to 35% in 2050. Synthetic fuels are made using renewable hydrogen together with captured CO2.

Regarding the marine sector, it will also require renewable hydrogen as the building block for production of renewable ammonia or biomethanol. Both fuels are seen as key to decarbonise the marine sector, with ships engines being modified/replaced to cater for the new fuel. Ships will have to gradually reduce greenhouse gas (GHG) emissions by cutting the amount of GHG in the energy they use (below 2020 level of 91.16 grams of CO2 per MJ) by 2% as of 2025, 6% as of 2030, 14,5% as of 2035, 31% as of 2040, 62% as of 2045 and 80% as of 2050. This would apply to ships above a gross tonnage of 5000, which are in principle responsible for 90% of CO2 emissions, and to all energy used on board in or between EU ports, as well as to 50% of energy used on voyages where the departure or arrival port is outside of the EU or in EU outermost regions.

The costs associated with the development of renewable fuels for aviation and maritime are high compared to fossil fuel prices, making it financially difficult for e-fuel producers to commercialise the technologies. In looking to the role of e-fuels, when compared to biomass or vegetable oil/fats, hydrogen and carbon capture costs which are the main component of the overall production cost. The costs associated with the deployment of infrastructure for e-fuel production and transportation, will be in excess of biobased fuels. Notwithstanding the multiple credits provided for certain eligible sources of renewable energy for transport in REDII, a Renewable Transport Fuel Obligation for road transport is unlikely to provide sufficient signals for investment to decarbonise aviation and shipping at scale. Production of renewable hydrogen at scale will lend itself to producing biobased SAF initially, moving to synthetic SAF in time, as renewable hydrogen ramps up to giga watt scale with the introduction of offshore renewable power.

Q7. What do you see as the key challenges or enablers to incentivise the supply of renewable transport fuels in aviation and maritime sectors?

Hydrogen Ireland would welcome an incentive to produce renewable hydrogen for both SAF production and any hydrogen derived products suitable for the marine sector. This could be in the form of a tax credit to subsidise the production cost of renewable hydrogen.

#### Q8. Do you agree with the inclusion of non-road mobile machinery (NRMM) within the RTFO?

Hydrogen Ireland recognises that all forms of transport will be required to collectively work together in order to achieve the ambitious targets set out in the Climate Action Plan. Hydrogen fuel cell powered mobile machinery, including agricultural and construction machinery is being developed currently. Relevant considerations are included in Section 2 Renewable Fuels of Non-Biological Origin (RFNBO).

Q9. If this were introduced as a reduced RTFO rate initially what contribution would be appropriate – 75%, 50%, 25% or other?

Nil

Q10. In your view what should be the key considerations for this policy proposal?

Nil

Q11. What is the appropriate balance of consideration of benefits and impacts including social, economic and environmental considerations?

Nil

Q12. Given the proposed trajectory of increase in the RTFO to meet ambitious biofuel blending targets in the climate action plan, what steps can be taken within this policy to avoid future biofuel lock...

Regulatory certainty on the functioning of the RTFO is of vital importance to obligated parties. It is accepted that biofuels will be the predominant source of low carbon liquid fuels in the relatively short period to 2030 and will be essential in that timeframe to meet Ireland's climate goals. As stated previously Hydrogen is a key feedstock required for the production of low carbon liquid fuels. In the next decade, biofuels in road transport will be joined and eventually overtaken by electrification of the passenger fleet using fuel cell electric vehicles (FCEVs) and battery electric vehicles (BEVs) and introduction of alternative renewable fuels such as Renewable Natural Gas, RFNBO's in the form of hydrogen and e-fuels.

The promotion and supports, including policy support, for the production and use of renewable hydrogen in hydrogen fuel cell vehicles (including HGVs, buses and coaches, light commercial and passenger vehicles, in private, public and commercial service vehicles), providing zero carbon transport, will increase the use of renewable fuels, by promoting use of a renewable fuel of non-biological origin (RFNBO). This measure will help to ensure that vehicles fuelled by fossil fuels and fossil fuels blended with biofuels will reduce as a proportion of the national fleet through time, avoiding and reducing future biofuel lock-in.

Q13. What safeguards and mitigation could be included, within this policy or related Government policy, against possible socio-economic and distributional impacts, to ensure just transition?

Within the RTFO and in understanding the source of renewable feedstocks there should be a focus on integrating Irish based supply and production. There are examples of other EU countries, particularly in Scandinavia, which have adopted this approach. Ireland has already an established biofuel production capability. An integrated approach to policy making must consider the

implications of existing commitments under CAP 2023 (i.e. biomethane target of 5.7TWh) and its interaction with encouraging domestic sources feedstocks (currently available and future potential from the agriculture and forestry sectors.

No supports are in place currently for renewable hydrogen fuel cell electric vehicles (FCEVs). Further observations by Hydrogen Ireland in this regard are included in Section 2 Renewable Fuels of Non-Biological Origin (RFNBO).

Equality of access to decarbonising fuels and technologies by public and commercial entities and by private citizens, will assist in building demand for renewable hydrogen as an opportunity to participate in climate action, and will support investment in renewable hydrogen supply and the distribution infrastructure in Ireland that is required by EU policy..

#### Q14. Do you agree or disagree with this approach? And why?

Nil

# Q15. Do you agree or disagree with the proposal for a higher national advanced biofuel obligation rate, beyond EU requirements?

Prior to increasing this target further, a review of the commercial availability of suitable feedstocks needs to occur, a consultation in 2024 would be welcome prior to setting 2026-2030 targets. The level of the obligation should be set relative to the availability of the advanced biofuels on the market. Currently there is limited supply of Annex IX Part A biofuels on the market. Rates beyond the EU target, which is higher that the recent RED III target, provisionally agreed in March 2023, must be considered against existing national targets under the Climate Action Plan 2023 and other statutory targets. Furthermore, these fuels must be able to demonstrate compliance with sustainability criteria as per RED II. In this context, emerging and accelerating climate change impacts suggest that land use will be required to be increasingly focussed on food production and carbon sequestration.

Hydrogen Ireland submits that it is preferable to incentivise the use of zero carbon fuels in order to accelerate decarbonisation of transport. Biofuels are at best carbon neutral; their use as fuels will give rise to carbon emissions, and they will be likely be seen under RED III as transitional in nature for use in older vehicles while the proportion of FCEVs in the vehicle fleet increases. Further observations by Hydrogen Ireland in this regard are included in Section 2 Renewable Fuels of Non-Biological Origin (RFNBO).

### Q16. What should the Department consider in setting the advanced biofuel obligation rate, including social, economic and environmental impacts?

Within the RTFO and in understanding the source of renewable feedstocks there should be a focus on integrating Irish based supply and production. There are examples of other EU countries, particularly in Scandinavia (excluding Denmark), which have adopted this approach. Ireland has already an established biofuel production capability. Policy should look to develop and encourage this industry to utilise feedstocks both currently available and future potential from the agriculture and forestry sectors, However, as noted above, emerging, and accelerating climate change impacts suggest that land use will be required to be increasingly focussed on food production and carbon sequestration.

Q17. What should be the key considerations – social, economic, and environmental, in establishing in 2025 a sub-target for renewable fuels of non-biological origin (RFNBO) and associated buy-out?

The 2030 targets for RFNBOs referred to in the consultation document are very low, and are outdated in the context of the current agreement to raise the share of renewables in the EU's final energy consumption to 42.5% by 2030, under the revision of the Renewable Energy Directive (REDIII).

Ireland's share of renewable energy as a percentage of total energy consumption, as shown in the Report on the Achievement of the 2020 Renewable Energy Targets (Report from the Commission to the European Parliament and the Council 2022), will need to increase from c. 13% in 2020 to at least 42.5% in 2030. Ireland participated in statistical transfer agreements under RED I that took effect in 2020, to reach a renewable energy percentage in the order of 15%, well below the 20% target that was exceeded within the combined Member States of the EU.

Currently, wind energy is the main source of renewable energy in Ireland, contributing primarily to the electricity sector. While significant expansion of onshore and offshore wind energy is planned including a target for renewable hydrogen production by 2030, together with significant targets for solar energy by 2030, increased fossil natural gas dispatchable electricity generation is also being planned for delivery in the short and medium term. The potential role of renewable hydrogen as a renewable energy in energy security and decarbonisation in all sectors in the Irish economy has been highlighted by Hydrogen Ireland in a number of submissions to public consultations published by the Department of the Environment, Climate and Communications (DECC) in 2022 and 2023.

Transport accounts for over 40 per cent of our energy related CO2 emissions in Ireland. HGVs currently account for 15 per cent of transport energy demand. Passenger vehicles account for just over 50% of transport energy demand in Ireland.

With respect to the multiple credits, it is noted they would usefully be considered with regard to the production, fuelling infrastructure and end users of renewable hydrogen, not only in public, commercial, and private transport, but also in other Group 1 sectors of the economy including Electricity, Buildings, Industry/Enterprise, and Agriculture.

It is requested that recommendations on the profile, sustainability, and supply of renewable hydrogen as a renewable ultra-low carbon transport fuel are also brought forward for implementation on 1 January 2023.

Recently announced supports for taxis apply to grants which will enable owners of small public service vehicles (SPSV), such as taxis and hackneys, to buy electric vehicles (EVs). It is recommended that supports for EVs should be extended to Hydrogen fuel cell EVs (FCEVs), as FCEVs are increasingly becoming available as detailed in the IERC paper Hydrogen in the Irish Energy Transition: Opportunities and Challenges.

Against the backdrop of the requirement to meet RED II obligations, the need for hydrogen refuelling infrastructure is bolstered by the European Commission's recently agreed Alternative Fuel Infrastructure Regulation. Member States will therefore have a mandatory obligation to provide alternative refuelling infrastructure every 200 km on the TEN-T core network and at urban nodes (including ports) by 2030. This equates to 5/6 stations, and the Department of Transport will be required to submit a draft National Policy Framework to the European Commission outlining proposed measures to meet this target. Higher national hydrogen refuelling infrastructure targets are recommended to facilitate uptake of zero carbon emission FCEVs.

The most popular RFNBO policies on the national level are those supporting use of hydrogen and fuel cells in mobility, as 31 out of 34 countries had at least one supporting policy. Countries have

different tax treatments of vehicles and thus different policy schemes to promote zero emission vehicles such as FCEVs. Hydrogen Ireland would welcome the opportunity to discuss in more detail.

Q18. What considerations should be included in this review – including possible social, economic and environmental impacts?

Nil

Q19. Would overall compliance be better achieved if the renewable transport fuel obligation were solely based upon a greenhouse gas intensity reduction rather than the current renewable energy obligation?

Hydrogen Ireland recommends a move to a GHG reduction target rather than the current energy target.

Q20. Would you agree with introduction of a greenhouse gas intensity reduction basis for the 2025 obligation period?

Nil

Q21. From your perspective, where does the focus need to be over the next two years concerning the implementation of the EU measures for oversight of sustainability and GHG reduction for renewable ener...

Nil

Q22. Do you agree with this approach in addressing the recommendations of the biofuel study?

Nil

Q23. If so, what are your views concerning the scope of the assessment?

Nil

Q24. Do you agree with the proposed trajectory of decrease in high ILUC-risk biofuels supply to 2030, as set out in the policy statement?

Nil

Q25. Should this be reduced annually, or every 2 or 3 years?

Nil

Q26. Should the reduction to 0% be accelerated, e.g. by 2025 or earlier?

Nil

**Q27.** Observations sought:

Concerning the proposal for a working group to progress further examination and research, addressing the policy challenge of EU obligations and domestic targets:

Do you ag...

Nil

Q28. If so, what are your views concerning the scope of the examination and research needed?

Nil

Q29. In addition to the policy indicators, evidence and research identified in this policy statement, are there other evidence-based inputs which need to be considered in order to support future policy...

Nil



Draft Renewable Transport Fuel Statement 2023 – 2025 Consultation Climate Adaption, Research and Energy Division Department of Transport Leeson Lane Dublin 2 D02 TR60

By email

Irish Bioenergy Association (IrBEA) <a href="https://www.irbea.org">www.irbea.org</a> @irishbioenergy

From: seanfinan@irbea.org

To: climateadaptationresearch&energydivision@transport.gov.ie

26<sup>th</sup> May 2023

#### <u>IrBEA Response to the draft renewable transport fuel statement 2023 – 2025 Consultation</u>

Dear Sir / Madam,

Thank you for the opportunity to contribute to this consultation on behalf of our members. The Irish Bioenergy Association (IrBEA), as the representative organisation for the bioenergy industry on the island of Ireland including the biofuels and biomethane sectors, has engaged with members in compiling this submission which reflects their views. IrBEA would like the items outlined below included in the renewable transport fuel statement including:

- Prioritise the goals of the Climate Action Plan 2023, using metrics recognised and consulted upon with stakeholders. The government seeks to cut transport emissions by 6 million tCO2eq, requiring 2 million tonnes less fossil fuel, by 2030, with 1 million tonnes of those cuts resulting from greater biofuels blending, i.e., about 450 million litres of additional biofuels. This is possible and represents a great opportunity for the indigenous renewable fuels sector. Where other measures are not scaling fast enough the biofuels target can be increased.
- Foster indigenous Irish and EU renewable fuels, as part of Ireland's circular economy strategy, for greater energy independence, for innovation and economic development and in recognition of the fact that feedstocks and biofuels volumes from outside Ireland and the EU are limited and becoming scarcer. Ireland should aim for



renewable fuels self-sufficiency or even net-exporter status. Impose tariffs/protections on both feedstocks and biofuel from outside the EU.

- Foster increases in blending rates of Fatty Acid Methyl Ester (FAME) biodiesel, to B12 and B20, where the blend is comprised of FAME blended in diesel. Diesel incorporating 20% HVO is not B20. To achieve this, a minimum percentage of Tallow Methyl Ester (TME) inclusion in diesel should be legislated, with B20 for captive fleets.
- Foster the national biomethane sector which is in early-stage development. Biomethane should be recognised as a high growth opportunity for indigenous biofuel production and use in transport. (Report from last October, dismisses biomethane due to lack to producers. Not an acceptable argument as the same applies to EVs). The biomethane strategy should foster biomethane use in transport. The biomethane strategy should include full details of policies, incentives, and supports to mobilise the sector. The strategy should also include supports for carbon capture and storage/use.
- Only allow waste-based feedstocks qualify for Annex IXb recognition where they are legally waste in their country of origin, otherwise they are not true waste as they can be used for other purposes. Annex IXb double-counting was conceived for true wastes, i.e., no displacement effect if the feedstock is used for energy. Outside Europe, Annex IXb feedstocks have alternative uses (animal feed primarily but also cooking oil and industrial uses) and their exploitation for energy in Europe results in displacement. Likewise, biofuels from materials such as starch and molasses which are clearly not waste and clearly do not require innovative or high-cost processing technology should not be afforded the same status as true wastes or "advanced" biofuels.
- Prioritise biofuels and feedstocks that allow traceability and validation of sustainability. Since the 2016 report by the European Court of Auditors, which highlighted the poor traceability of feedstocks from outside the jurisdiction of the European Union there have been no material changes to the certification system.
- The European Commission suggests that the Union Database will be an effective deterrent to fraud. Ireland should insist that the database be validated by an independent third party for functionality and technical readiness, prior to acceptance. The database, if intended to reduce the risk of fraud, should incorporate functionality to support official EU fraud processes (analysis, detection, prosecution) aimed at identifying and prosecuting fraud, otherwise claims that it will reduce fraud should not be accepted. Currently there is no oversight or transparency in how the Database will be deployed. Data in country of origin and type of feedstock should be made public from 2023 and not from some future date defined in RED3. Biofuels which share



supply chains with palm and soy oil, such as POME or UCO from palm oil producing regions, should be subject to special scrutiny.

- Raise the crop cap from 2% to at least 5%. Ireland adopted the lowest possible "crop cap" under the Renewable Energy Directive. There are many instances of crop-based biofuels being highly sustainable and better for the climate and environment than continued use of fossil fuels. There are no records of any analysis or process leading to the decision to apply a 2% limit. The cap is arbitrary and its application is a sign of policy being driven by sentiment rather than climate science. Note: the national biomethane strategy will not be achievable, even in part, if crop caps are applied unthinkingly. Grass is a crop.
- Ireland is self-derogating the 1.7% cap on Annex IXb biofuels. This cap, like the crop cap, is arbitrary. Ireland should avoid arbitrary caps, both the 1.7% and the crop cap, and instead apply objective criteria. HVO and CoHVO produced from the same feedstocks as FAME are not subjected to the same cap.
- Opportunities for new forms of commercial scale biofuels production in Ireland, for instance using grass or co-products of biorefineries, should be actively examined, and referenced in the statement.
- While multiple-counting or equivalent systems for incentivising one form of renewable over another may be applied, official reports at all levels should be stated in terms of real physical metrics (volume, mass, energy, GHG savings). The current official public reporting system in Ireland (as per SEAI reports), using a hybrid of RED2 accounting rules, grossly misrepresents the true situation, making the sector incomprehensible and frustrating for all but a handful of stakeholders.
- Energy, economic and emissions modelling processes (such as LEAP and TIM) should include industry consultation. Modelling processes conducted without validation invariably result in gross errors because of incorrect input data and assumptions.
- Regarding Sustainable Aviation Fuel (SAF) that is co processed, there is no regulation as to what is going to aviation fuel and transport fuels.

IrBEA would like to include the following specific feedback regarding some of the questions posed in the document including:

 We agree with the climate action plan actions to incentivise greater production, supply, and use of biogas / biomethane. Transport offers a higher value economic use for biogas / biomethane compared to other sectors. This should be articulated in the policy statement.



- We support that renewable electricity in transport should not be included in the RTFO and agree that existing supports for cross-sector renewable electricity supply are sufficient to incentivise renewable electricity in transport consumption.
- We agree that the Department should establish a working group to progress a voluntary vulnerability assessment of the current and projected future biofuels supply into Ireland, with a view to identifying scope for risk of biofuel fraud (leading to high ILUC-risk) and other indirect impacts and making recommendations concerning improvements. IrBEA and our members are willing to participate in this and any other working group that the Department may establish.
- Regarding the biofuels study, we note that this study was completed without industry input and consultation. This report should be fully reviewed with industry input before it is used as the basis for policy implementation.

We thank the Department for the opportunity to respond to this consultation and look forward to engaging further with the Department regarding the renewable transport fuel statement 2023 - 2025.

Yours sincerely,

Seán Finan B.E. C. Eng MIEI Chief Executive Officer Irish Bioenergy Association (IrBEA)

Tel: 087 4146480



#### Irish Rail Submission

#### What do you think are the key considerations to be considered within this review?

Irish Rail are investigating the potential use of HVO biofuels across all rail services. HVO does not have the same technical barriers to engine performance as FME based biofuel and may facilitate higher blend rates. HVO is not specifically mentioned here - is it included?

Emission Factors - is there certifiable common set of numbers in place? If not, it needs to be published by government.

WE understand that biofuels in high demand in well off private sectors such as data centres, pharma which may drive up the price. Is it possible to ringfence adequate amount for use by transport and hard to decarbonize sectors (rail freight for example). No certainty Rail sector can procure biofuels in large volumes. Could there be State aid for purchase of large volumes. Note that Irish Rail annual volume is c. 45 million litres of fossil diesel.

Uncertainty in biofuel pricing - should there be a biofuel variation clause in the Irish Rail PSO with government

### Consultation Draft Renewable Transport Fuel Policy 2023-2025

Irving Oil 26<sup>th</sup> May 2023

Irving Oil is pleased to provide a response to the consultation on the development of the Renewable Transport Fuel Policy 2023-2025, including implementation of the emission reduction targets in transport as outlined in the Climate Action Plan, elements of the recast Renewable Energy Directives ('REDII') and consideration of the EU fit for 55 proposals. We appreciate the opportunity to participate as a stakeholder as this is an important policy with impacts to fuel suppliers, terminal and retail operators as well as end consumers. We look forward to working with the Department of Transport (DOT) as an active stakeholder in the development of these future climate targets.

#### **Background**

Irving Oil is an international refining and marketing company with a history of long-term partnerships and relationships. Founded in 1924, Irving Oil operates Canada's largest refinery in Saint John, New Brunswick, along with more than 1,100 fueling locations and a network of distribution terminals spanning Eastern Canada, New England and Ireland. We are on a continuous journey of sustainable development while meeting the evolving energy needs of our customers. Named one of Canada's Top 100 Employers for seven consecutive years, we have a strong customer and community focus and are committed to growing for tomorrow. The company is on a continuous journey of sustainable development, working to reduce our environmental footprint while continuing to provide safe and reliable energy to our customers.

As part of our Energy Transition and Climate strategy, we have set a 30% GHG emission reduction goal by 2030, with an aspiration to achieve net-zero by 2050. We have an Energy Transition Strategy in place to achieve our 2030 climate goal – and progress is already being made toward reaching this target.

In Ireland, Irving Oil operates the country's only oil refinery in Whitegate, Co Cork and the TOP brand which operates fueling locations nationally and an import terminal in Dublin. As such, we serve our customers through the full suite of supply, manufacturing, distribution and sale of transportation and heating fuel products. Our operations in Dublin and Cork are already a significant supplier of biofuels to the Irish economy and we look forward to a continued contribution to the objectives of the Renewable Transport Fuel Obligation (RTFO). We welcome the regulatory certainty on the

implementation of renewable fuels policy as it is a key component to our business planning as we look to 2030 and beyond.

Our industry's contribution to meeting the recast RED targets will be an important component to Ireland's Climate Action Plan as we transition to a lower carbon economy. Every country in Europe has its own unique regional strengths and challenges. To this end, Ireland is well placed to utilize indigenous feedstocks (largely from waste streams in the agricultural sector) for biofuels manufacturing and there are already a number of indigenous companies operating in this sector. Irving Oil believes that the RTFO should promote flexibility on the pathway to compliance. This will encourage utilizing different biofuel streams and result in optimizing the contribution from local biofuel supply and production.

At our Irving Oil Whitegate Refinery, our company continues to explore opportunities which could utilize indigenous feedstocks in the production of renewable diesel, an alternative advantaged biofuel product which will be required in delivering the 2030 targets called for in this consultation.

# Acronyms:

RTFO: Renewable Transport Fuel Obligation

B7: Diesel containing 7vol% FAME

DECC: Department of Environment, Climate and Communications

E5: Gasoline with up to 5vol% ethanol added

E10: Gasoline with up to 10vol% ethanol added

FAME: Fatty Acid Methyl Ester

FFV: Flexible Fuel Vehicles

FQD: Fuels Quality Directive

GHG: Green House Gas

HVO: Hydrotreated Vegetable Oil

NRMM: Non-Road Mobile Machinery

RED: Renewable Energy Directive

RFNBO: Renewable Fuel of Non-Biological Origin

SAF: Sustainable Aviation Fuel

UCO: Used Cooking Oil

UCOME: Used Cooking Oil Methyl Ester

TME: Tallow Methyl Ester

## Section 1: Review of the RTFO Scope

#### RAIL TRANSPORT

Proposed Action: With consideration to the initial steps that have been taken by CIE this year at an operational level to comply with the RTFO, and the need for consideration of primary legislation to extend the scope of the definition of 'relevant disposal' for the purpose of the RTFO, the timeline for the proposal to include rail within the RTFO will be extended to 2025.

A review to include rail transport fuel within the scope of the RTFO by 2025 is proposed: What do you think are the key considerations to be considered within this review?

Irving Oil agrees that rail transport should be included within the scope of the RTFO. Irving Oil recognises that all forms of transport will be required to collectively work together in order to achieve the ambitious targets set out in the Climate Action Plan. The introduction of rail to the RTFO has been a question posed by the government since 2019, with the intention of the government to ensure alignment with RED II by inclusion of rail.

As indicated above CIE have introduced B7 into their operation for the purposes of meeting their road transport obligation. There are no concerns regarding supply chain or logistics with respect to supplying increased volumes of B7 to CIE for the purposes of use in rail transport. While B7 is a step in the right direction towards compliance, HVO will be required in order to achieve full compliance and avoid a "buy-out" of the obligation by CIE.

A fully compliant fuel containing both FAME (7vol%) and HVO could be supplied to CIE so that both rail and road fleet can be decarbonised and meet the RTFO targets.

# Do you agree or disagree with the proposed review timeline, and reasons why?

Irving Oil believes that rail transport should be obligated as soon as legislatively possible. This timeline has already been delayed and as indicated above, has been discussed for over four years now.

While Irish Rail are looking at alternative technologies for trains, such as Hydrogen Fuel Cell, the timing of the introduction of these trains will not lend itself to a decarbonised train network until post 2030. Low carbon liquid fuels (HVO) should be fully utilized while the train network is considering alternative technologies in its decarbonisation journey.

#### RENEWABLE ELECTRICITY - IN ROAD AND RAIL TRANSPORT

Following consultation and review, it is intended that electricity used for transport would not be included in the RTFO:

Do you agree that existing supports for cross-sector renewable electricity supply are sufficient to incentivise renewable electricity in transport consumption?

Supports for renewable electricity are generous and have incentivised development and production irrespective of outlet for final energy demand. Energy producers and suppliers are not in control of EV adoption so it's difficult to see how they should be obligated. Consequently, if not obligated would conclude that certificates should not be awarded.

If you agree, do you think that there is merit in reviewing this position again in 2025 or a later date?

Irving Oil agrees that all aspects of this policy should remain open for periodic review given the rate of change and need to continuously review targets and ambition.

Do you think that models such as in the Netherlands should be explored further for the benefits for electrification of transport?

Irving Oil believes that EV infrastructure investment should be incentivised, and various European models explored. In the context of the RTFO Irving Oil thinks that incentives should be focused towards increasing advanced biofuels and RFNBO production and supply.

#### AVIATION AND MARITIME FUELS

Proposed Action: To review the demand and supply of SAF and RTF in maritime fuel within the context of RTFO certificates issued or the draft regulations for additional RTFO certificates, as part of the evidence base for any future policy consideration within the context of implementing future EU Regulations.

# What incentives would you like to see for supply of renewable transport fuels in aviation and maritime fuels?

In the medium to longer term aviation and maritime will be the most difficult parts of the energy mix to decarbonise and will continue to require liquid fuels longer than other areas of the transport system.

Ireland as an island nation is particularly exposed to aviation and maritime as a transport mode. In mitigation of this exposure Ireland has a specific opportunity to become a manufacturer of low carbon liquid fuels for the aviation and maritime sectors. The development of Ireland's offshore wind potential in the coming decades will require a route to market with the production of e-fuels such as eSAF, eAmmonia and eMethanol offering a solution.

If Ireland is to take advantage of this opportunity incentives will be a key tool in enabling investment in production capability. In the short to medium term this will be more focused on low carbon biobased liquid fuels. Policy makers should keep an open mind on how incentives could be constructed. These could be in areas of taxation, direct contribution to production as currently available in the USA under the Inflation Reduction Act or as envisaged under the EU Hydrogen Bank scheme. Capital supports for innovative projects are another lever which have worked well at a European level.

# What do you see as the key challenges or enablers to incentivise the supply of renewable transport fuels in aviation and maritime sectors?

By definition, aviation and to a large degree maritime fuels are transboundary. Incentivisation of these fuels will require close alignment with EU initiatives and compliance with relevant delegated acts will be required. At a national level operation of the RTFO could be utilised to enable early adoption of SAF. Currently placing renewable fuels into aviation or maritime are rewarded towards meeting RTFO obligations. Policy should look at the reverse in that exceeding RTFO obligations could be considered towards future national or European SAF obligations.



Proposed Action: Further consideration is to be given to inclusion of the category of NRMM in the scope of the RTFO, in the context of decarbonising hard to abate sectors, and the timeframe of implementing emission ceilings within the second carbon budget, which commences in 2026.

Do you agree with the inclusion of non-road mobile machinery (NRMM) within the RTFO?

Irving Oil recognises that all forms of transport will be required to collectively work together in order to achieve the ambitious targets set out in the Climate Action Plan.

If this were introduced as a reduced RTFO rate initially what contribution would be appropriate – 75%, 50%, 25% or other?

It would be appropriate to begin at a lower level such as 25% to enable the market to adjust and adapt. In addition, the RTFO should have the flexibility to allow renewable fuels placed on the market in excess of the obligation rate in the on-road sector to be counted towards any NRMM obligation.

In your view what should be the key considerations for this policy proposal?

For the balance of this decade and until e-fuels begin to enter the mix there will be a requirement for the same bio based renewable fuels to meet obligations in all transport sectors. This is a clear challenge which the market will need to resolve. From a fuels quality perspective, the supply and storage logistics for NRMM will preferentially favour using HVO over FAME for continued good operability of machinery in this sector.

What is the appropriate balance of impacts including social, economic, and environmental considerations?

The balance of impacts will be largely the same as that for the on-road obligation. It is recognised that the same pool of renewable fuels will be called upon to meet this obligation. The Irish low carbon liquid fuels market is very small in a European context and does not influence the cost of what are internationally traded commodities. However, the Irish challenge to decarbonsise our transport sector is greater than most other EU countries given our energy mix and it makes sense to directionally include all sectors. If there are social or economic impacts for NRMM users the sector is such that targeted mitigation measures would be more feasible than the on road sector.



#### Section 2: RTFO rate, targets, and limits

#### THE RTFO RATE

Proposed Action: the RTFO rate is projected to be increased by 4.5 percentage points (from the current 16.5 to 21%) by energy for the obligation period 2024; and 4 percentage points (from 21% to 25%) by energy for the obligation period 2025, subject to statutory consultation on draft regulations; and in 2024 a further review and consultation is to be carried out on the indicative annual trajectory of increase in the RTFO rate 2026-2030.

Given the proposed trajectory of increase in the RTFO to meet ambitious biofuel blending targets in the climate action plan, what steps can be taken within this policy to avoid future biofuel lockin?

The Climate Action Plan associated sectoral carbon budgets and proposed trajectory in the RTFO to 2030 are clearly defined and communicated. The single most important criteria for the industry to deliver the ambition of the RTFO to 2030 is regulatory certainty on the operation of the scheme. It is accepted that biofuels will be the predominant source of low carbon liquid fuels in the relatively short period to 2030 and will be essential in that timeframe to meet Ireland's climate goals. Into the next decade biofuels in road transport will be joined and eventually overtaken by electrification of the passenger fleet and introduction of alternative renewable fuels such as Renewable Natural Gas, RFNBO's in the form of Hydrogen and e-fuels.

What safeguards and mitigation could be included, within this policy or related Government policy, against possible socio-economic and distributional impacts, to ensure just transition?

Within the RTFO and in understanding the source of renewable feedstocks there should be a focus on integrating Irish based supply and production. There are examples of other EU countries, particularly in Scandinavia, which have adopted this approach. Ireland has already an established biofuel production capability. Policy should look to develop and encourage this industry to utilise feedstocks both currently available and future potential from the agriculture and forestry sectors.



#### **E10 MANDATE**

Proposed Action: A review of the effectiveness of the 5.5% minimum percentage ethanol in petrol measure in meeting the CAP target with a view to adjusting the specification upwards by 2025, subject to consultation on draft regulations.

To ensure achievement of the climate action plan target of E10 by 2025, it is proposed to keep under review the supply of ethanol, with a view to possible increase in the minimum percentage ethanol in petrol by regulation in 2025:

Do you agree or disagree with this approach? And why?

Irving Oil firmly disagrees with the approach suggested above. E10 petrol should not carry a minimum percentage of ethanol addition above 5.5vol%.

Since the beginning of the Biofuel Obligation Scheme/RTFO fuel suppliers have always optimised how the biofuel targets are achieved. This has been vital to the success of the obligation as the production and blending of both petrol and diesel are extremely complex and very challenging in nature. To best meet Ireland's ambitious Climate Action Plan targets, ensure product specifications are adhered to, and to ensure the lowest end user cost of supply, it is imperative fuel producers and suppliers have some level of commercial and physical flexibility to achieve all these goals at the same time. No different to the diesel market, it should be up to the supplier of the fuel to optimise how the various targets are achieved.

In summary, mandating a higher level of ethanol addition could inhibit market penetration of fuels that have lower greenhouse gas emissions, higher energy performance, and lower cost of supply for the end user.



#### ADVANCED BIOFUEL OBLIGATION

Proposed Action: the advanced biofuel obligation rate is to be increased by at least one percentage point (from 0.3% currently to 1.0%) by energy for the obligation period 2024; and by at least 0.5 percentage points (from 1.0% to 1.5%) by energy for the obligation period 2025, subject to consultation on draft regulations; and in 2024 a further review and consultation is to be carried out on the indicative annual trajectory of increase in the advanced biofuel rate 2026-2030.

Do you agree with the proposal for a higher national advanced biofuel obligation rate, beyond EU requirements?

Irving Oil does not recommend setting the national obligation at a higher level than the EU requirements and would recommend caution regarding the implementation of the advanced biofuel targets. Irving Oil supports setting the advanced biofuel obligation to 1.0% in 2024 and 1.5% in 2025. Prior to increasing this target further, a review of the commercial availability of suitable feedstocks needs to occur. Irving Oil welcomes a consultation in 2024, prior to setting 2026-2030 targets. The level of the obligation should be set relative to the availability of the advanced biofuels on the market. Currently there is limited supply of Annex IX Part A biofuels on the market.

What should the Department consider in setting the advanced biofuel obligation rate, including social, economic, and environmental impacts?

If the obligation is to increase through the period to 2030 it would be recommended to ensure the increases are conservative at first, allowing technology development, increasing towards the latter part of the period, i.e., 2027 onwards. If the targets are set at a value that cannot be achieved by the fuel suppliers, this will only increase costs to the consumer due to the high buy-out charge for non-compliance with the advanced biofuel targets. Regular monitoring of this target would be advised.



### RENEWABLE FUELS OF NON-BIOLOGICAL ORIGIN (RFNBO)

Proposed Action: Subject to adoption of the amendments to the EU Renewable Energy Directive, introduction of a sub-target obligation for supply of RFNBO in 2025, including an appropriate buyout charge, subject to consultation and establishment of the necessary delegate acts. Further research and consultation to be carried out as to the projected availability and projected annual increase in the RFNBO contribution rate required in the years from 2025 to 2030.

What should be the key considerations – social, economic, and environmental, in establishing in 2025 a sub-target for renewable fuels of non-biological origin (RFNBO) and associated buy-out?

Irving Oil welcomes the discussion around introduction of RFNBO targets in transport. However, adoption of this target as early as 2025 could be challenging for the sector due to the lack of policy certainty around RFNBO production rules and around financial supports for RFNBO production.

Currently, industry is awaiting the publication of a Hydrogen Strategy for Ireland and finalization of the Delegated Acts for RFNBO production and certification from the EC. Until these policies are finalized it is difficult for industry to make a Final Investment Decision (FID) with regard to RFNBO production, as these policies define the financial business case for industry. Also in the early stages of development is the European Hydrogen Bank (EHB) aimed at stimulating and supporting investment in RFNBO production.

Irving Oil would recommend waiting until these policies are further defined allowing companies to make a decision regarding investing in RFNBO production before setting a RFNBO target in 2025.

Irving Oil is currently the largest producer and consumer of hydrogen in the country and has a requirement for additional hydrogen at site to further its low carbon liquid fuel production and to help decarbonise the existing refinery operation. It has been recognised that refineries will play a key role in the production of low carbon hydrogen due to their expertise and offtake requirements. Irving Oil is currently studying this opportunity and therefore will welcome a RFNBO target in transport in line with policy certainty.



Proposed Action: The supply in 2023/2024 of the specified fuels, which qualify for additional certificates, will be reviewed against the objective for incentivisation, the rationale for which will also be considered, so that any necessary adjustments can be consulted upon in 2024 and implemented for the 2025 obligation period.

What considerations should be included in this review – including possible social, economic, and environmental impacts?

RED III and the direction of many EU countries would point to the adoption of an EU Greenhouse Gas Intensity Reduction Target. Our views on the merits of this change are described in the next section. A GHG intensity target could replace certificate multipliers while rewarding lower Carbon Intensity (CI) fuels. Ahead of RED III adoption and transposition into Irish law we would concur with the proposed action.

Incentives for renewable transport fuels are an important tool to complement an obligation. The original RTFO was incentivised by a Mineral Oil Tax Relief Scheme which established blending capability for biofuels across the country and renewable diesel production at the Whitegate Refinery. We have outlined ideas to incentivise the Aviation and Maritime sectors above and of course renewable energy production has benefited from the renewable electricity support scheme (RESS) and public service obligation (PSO) over many years.



#### **Section 3: Supporting compliance**

#### EU GREENHOUSE GAS INTENSITY REDUCTION TARGET

Proposed Action: Subject to the adoption of the EU revision of the Renewable Energy Directive, expected in 2023, to consider implementing any necessary changes to the RTFO and the RTFO rate in 2025, including consideration of new greenhouse gas intensity targets and compliance enforcement that is proportionate and dissuasive.

Would overall compliance be better achieved if the renewable transport fuel obligation were solely based upon a greenhouse gas intensity reduction rather than the current renewable energy obligation?

Would you agree with introduction of a greenhouse gas intensity reduction basis for the 2025 obligation period?

Irving Oil would recommend a move to a GHG reduction target rather than the current energy target. A GHG reduction target would further encourage the use of wastes as a feedstock for low carbon liquid fuel production. Waste-based biofuels have higher GHG% savings than crop-based biofuels so this would give suppliers an incentive to utilize wastes over crops.

Introduction of this target in 2025 would be a reasonable timeframe. Irving Oil would welcome a consultation prior to the switch to a GHG target and would caution that this GHG target is set at a level commensurate to the proposed energy target trajectory.



# SUSTAINABILITY AND GHG CRITERIA COMPLIANCE - EU DATABASE AND SUPERVISIONS OF CBS

Proposed Action: The system administrator and Departments will continue to engage at an EU level with the European Commission and with stakeholders to ensure implementation of the EU supervision updates.

From your perspective, where does the focus need to be over the next two years concerning the implementation of the EU measures for oversight of sustainability and GHG reduction for renewable energy in transport?

Irving Oil has engaged at an EU level with respect to inputting data to the Union Database. We welcome the governance that this database will bring to compliance in relation to tracking of sustainable feedstocks.

Once this database has been established for a period of time and confidence has been established with regards to the volumes of Annex IX Part B feedstocks, this should allow for a review of the 1.7% limit placed on these feedstocks. The European Commission indicated that this limit of 1.7% was put in place to target alleged fraud in relation to Used Cooking Oil and Cat 1/2 Tallow. The Union Database should allay those fears and eliminate the potential for fraud.

Irving Oil believes this should be the focus over the next two years, allowing for the increased use of indigenous waste-based feedstocks.

#### SAFEGUARDING AGAINST RISK OF FRAUD AND OTHER INDIRECT EFFECTS

Proposed Action: In 2023 the Department will establish a working group to progress a voluntary vulnerability assessment of the current and projected future biofuels supply into Ireland, with a view to identifying scope for risk of biofuel fraud (leading to high ILUC-risk) and other indirect impacts and making recommendations concerning improvements.

Concerning the proposal to establish a working group and a voluntary vulnerability assessment concerning biofuel fraud risk:

Do you agree with this approach in addressing the recommendations of the biofuel study? Irving Oil is supportive of measures which increases the confidence of legislators, regulators and our customers on the providence of the biofuels we source, produce and supply to the Irish market.



#### If so, what are your views concerning the scope of the assessment?

Our view is that auditing and safeguarding criteria as managed by the NORA under the RTFO scheme is robust. The assessment should look to validate this view by benchmarking Ireland's safeguards compared to other EU countries.

HIGH-ILUC-RISK

Proposed Action: it is the intention to reduce the contribution of high ILUC-risk biofuels to the RTFO commencing in the 2024 obligation period.

Do you agree with the proposed trajectory of decrease in high ILUC-risk biofuels supply to 2030, as set out in the policy statement?

Should this be reduced annually, or every 2 or 3 years?

Should the reduction to 0% be accelerated, e.g., by 2025 or earlier?

Given Ireland has very limited use of biofuels produced from high-risk ILUC feedstocks such as palm oil, Irving Oil would see no issue with these fuels being phased out from 2024 onwards. Coupled with this, more than 90% of Ireland's biofuel feedstocks are waste based<sup>1</sup>, i.e., not based on crop feedstocks, therefore ensuring a high degree of sustainability within the sector. Irving Oil would see no issue with an accelerated reduction in high ILUC feedstocks.

<sup>&</sup>lt;sup>1</sup> BOS Annual report "457-22X0084 Rev\_1 - BOS Annual Report 2021 for publication.pdf"



#### Section 4. Ongoing review of evidence and research supporting the Policy

Proposed Actions: The Department in 2023 will establish a working group to progress further examination and research building on the conclusion of the Biofuel Study Report 2022 to address the challenge of achievement of EU renewable energy obligations and ambitious domestic targets for biofuels. This would include the contribution of advanced biofuels, RFNBOs and potential renewable electricity, in future road, aviation and maritime transport consumption, considering research and analysis in Europe, the UK and beyond as recommended in the Biofuel Study Report 2022.

In collaboration with the NORA, the Department in 2023 will review the indicators for ongoing assessment of impacts of changes to the RTFO as proposed in this policy statement, considering possible socio-economic and distributional impacts.

Concerning the proposal for a working group to progress further examination and research, addressing the policy challenge of EU obligations and domestic targets:

### Do you agree with this approach in addressing the conclusion in the Biofuel study?

This review is necessary and timely given the specific direction which Ireland took in the last decade in successfully meeting RES-T under the original Renewable Energy Directive. The Irish biofuel market today has one of the lowest, if not the lowest, crop-based sources in the EU. However, this was achieved by concentrating on waste-based feedstocks such as Used Cooking Oil and Cat 1 Tallow.

As a result of this dynamic, Ireland is at a disadvantage given how RED II and RED III have subsequently evolved, specifically around the 1.7% limit placed on Annex IX Part B feedstocks. Irving Oil would recommend a review of this 1.7% limit of Annex IX feedstocks, particularly as the EU are rolling out the Union Database to mitigate fraud concerns with regards to biofuel feedstocks.

#### If so, what are your views concerning the scope of the examination and research needed?

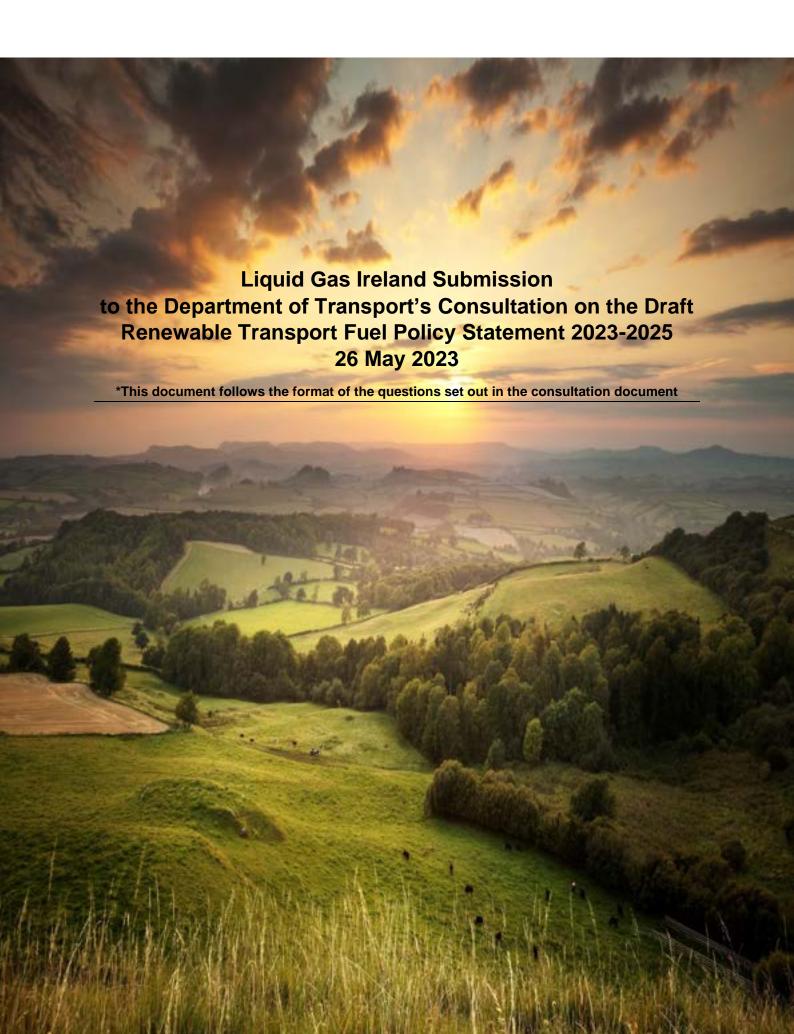
The scope would benefit by focusing on the outcomes of REDIII, identifying gaps with where we are today and in the context of future Carbon Intensity targets determine how national and EU targets could converge by the end of this decade



In addition to the policy indicators, evidence and research identified in this policy statement, are there other evidence-based inputs which need to be considered to support future policy development and implementation?

As mentioned earlier, Ireland's energy opportunity with the expected acceleration of offshore wind production in the next decade should be an area of focus. It is imperative that policy should be addressing how this offshore wind opportunity and associated potential for production of low and carbon neutral liquid fuels can be factored into RTFO development. As with all efforts in the energy transition robust and timely planning and permitting processes will be a key success factor.







## **About you**

Name: Liquid Gas Ireland (LGI)

LGI is the association representing companies operating in the LPG and BioLPG industry in Ireland. Members include LPG and BioLPG producers, distributors, equipment manufacturers, and service providers. Our mission is to ensure that policy makers continue to recognise LPG and BioLPG as the clean, versatile, and alternative lower carbon energy of choice for off natural gas grid energy users in the residential, commercial, industrial, agriculture, leisure, and transport sectors in Ireland. Liquid Gas Ireland is committed to working with consumers, stakeholders, and policymakers to support Ireland's goal to tackle air quality, drive decarbonisation and achieve net zero emissions by 2050.

As part of Liquid Gas Ireland's response to the Department of Transport's Public Consultation on the Renewable Fuels for Transport Policy, we wish to respond to the consultation questions as outlined below. LGI fully supports the Department's policy measure, via the Biofuels Obligation Scheme, to increase the share of renewable energy in the transport sector and to contribute to the reduction of Ireland's greenhouse gas emissions.

Email: <a href="mailto:info@lgi.ie">info@lgi.ie</a>
Web: <a href="mailto:www.lgi.ie">www.lgi.ie</a>

# **Section 1: Review of The RTFO Scope**

I. Rail Transport

N/A

II. Renewable electricity -in road and rail transport

N/A

III. Aviation & Maritime Fuels

N/A

IV. Non-Road Mobile Machinery

Do you agree with the inclusion of non-road mobile machinery (NRMM) within the RTFO?

Liquid Gas Ireland (LGI) agrees with the with the inclusion of non-road mobile machinery within the RTFO. This would provide more opportunities to deliver biofuels and provide new channels for innovation.

BioLPG (AKA: Hydrotreated Vegetable Oil Renewable Propane) can be blended up to 100% with Liquefied petroleum gas (LPG)¹ and can continue to make a significant contribution to the RTFO targets, in particular for NRMM widely used in Ireland through the forklift truck sector. Continuing innovation in the liquid gas industry has led to the development of Renewable Dimethyl Ether (rDME), a low carbon, sustainable, liquid gas, which is complimenting the advances being made by BioLPG. Made from a wide range of renewable and recycled carbon feedstock, including waste streams, it offers a versatile and flexible decarbonisation route for NRMMs and the transport sector.

There is a large range of hard to electrify machinery which should be prioritised for biofuel support. Forklift trucks, mini transporters and other NRMM can reduce carbon emissions and improve air quality by using BioLPG and rDME. One 18kg cylinder of LPG can power a forklift or similar vehicle for around eight hours, with no power loss, and they work just as well indoors as outside with fewer harmful emissions. A recent study by Ecuity found that stationary combustion and off-road mobile

2

<sup>&</sup>lt;sup>1</sup> https://www.lgi.ie/biolpg/



machinery has a high decarbonisation potential with a greenhouse gas emission reduction of 33.9 Mt CO2e by 2050. They found a strong opportunity for BioLPG in this sector, particularly for off-road mobile machinery such as in construction where a versatile and portable fuel is required. NRMM is used on construction sites to power important infrastructure projects.

The transition away from diesel systems, which currently dominate the mobile generator and welfare cabin market, will be game-changing for air quality whilst also lowering GHG emissions. This is an important consideration given the proximity of many construction sites to densely populated areas. rDME has already been proven to be effective in decarbonising HGVs as shown in trials in Sweden with a reduction in emissions of 90% compared to diesel<sup>2</sup>. BioLPG used in NRMM can also be used in adapted road vehicles, as with LPG Autogas, which is a widely used alternative fuel for road transport in Europe. To meet our decarbonisation targets we should consider all machinery and transport that require fuels as a single market.

# If this were introduced as a reduced RTFO rate initially what contribution would be appropriate – 75%, 50%, 25% or other?

The NRMM should be initially introduced at a reduced rate, increasing over time to match the main obligated rate by 2030.

### In your view what should be the key considerations for this policy proposal?

Consideration must be given to the ability to produce the renewable fuels at the scale required to meet demand for NRMM. To ensure rapid uptake of renewable fuels in the EU market across all sectors, including BioLPG and rDME, it is important to signal to industry and the energy sector that production and use of renewable fuels will be supported in the long term by coherent legislation and policies. This can only be achieved if measures and incentives are consistent across legislative files.

# What is the appropriate balance of impacts including social, economic, and environmental considerations?

Biofuels such as rDME and BioLPG can provide an instant fossil fuel replacement to areas which require alternative solutions to electrification. However, to meet the additional demand, support towards the development of these fuels is required and incentives put in place for domestic production of BioLPG and rDME. A contracts-for-difference scheme should be considered to encourage domestic production of fuels like rDME and BioLPG or increased credit incentives for fuels which can feed these new markets.

BioLPG and rDME also have an important role to play in helping tackle air pollution. There are an estimated 1,300 premature deaths in Ireland per year caused by fine particulate matter in our air15. As clean burning fuels with extremely low levels of air and particulate pollutant emissions (NOx, SOx and PM), using rDME and BioLPG in NRMM can contribute to improving local air quality, supporting the objectives of the Government's Clean Air Strategy, helping to deliver on Ireland's air quality targets.

3

<sup>&</sup>lt;sup>2</sup> https://www.greencarcongress.com/2010/09/biodme-20100916.html



# **Section 2: RTFO Rate Targets and Limits**

### I. The RTFO Rate

Given the proposed trajectory of increase in the RTFO to meet ambitious biofuel blending targets in the climate action plan, what steps can be taken within this policy to avoid future biofuel lock-in?

To avoid future biofuel lock-in, the Government must promote innovation in the energy sector and invest in research and development. There is a large range of hard to electrify transport cases which will require alternative fuels at scale in the long term. Biofuels such as rDME and BioLPG can provide an instant fossil fuel replacement to areas which require alternative solutions to electrification. However, to meet the additional demand, support towards the development of these fuels is required and incentives put in place for domestic production of BioLPG and rDME. Short- and medium-term investment in the development of advanced biofuels will be crucial to meeting Ireland's ambitious biofuel blending targets, with additional incentives to explore other long-term transport fuel options.

What safeguards and mitigation could be included, within this policy or related Government policy, against possible socio-economic and distributional impacts, to ensure just transition?

The Programme for Government commits the Government to ensuring that the increases in the carbon tax are progressive and investment is made to prevent fuel poverty to ensure a just transition. LGI believes that targeted interventions by the Government can meet the principles of the Just Transition Framework.

To ensure a just transition the Government must incentivise the production of BioLPG and newer renewable liquid gas development fuels like rDME to ensure indigenous supply meets demand and that essential fuels remain affordable. By facilitating research and development funding for the sector, Ireland can provide a platform for those entities intending to support domestic production to do so.

II. E10 Mandate

N/A

### III. Advanced Biofuel Obligation

Do you agree with the proposal for a higher national advanced biofuel obligation rate, beyond EU requirements?

We do not support a higher national advanced biofuel obligation rate beyond EU requirements. Time is required for the biofuels sector to secure advanced biofuel feedstocks, a fact recognised by the European Union when setting the obligation rate. We strongly advocate for a similar rate to apply to Ireland to allow time for development of advanced feedstock and the successful delivery of these fuels to market.

What should the Department consider in setting the advanced biofuel obligation rate, including social, economic, and environmental impacts?

Investment in research and development is imperative to continue progressing the development of advanced feedstock options. BioLPG and rDME have the potential for development as an advanced biofuel in Ireland from biological sources in the coming years. The industry will need clear policy direction from Government on how advanced biofuels will be supported in the long term.



Currently, the LPG EU sector is investing in the research and development of second generation BioLPG, which as an advanced biofuel will place a stronger focus on advanced processes, using wastes and lignocellulosic feedstocks that typically achieve greater efficiencies and deliver greater Greenhous Gas (GHG) savings. Our sector has demonstrated significant progress in feedstock development since the introduction of BioLPG to the Irish market in 2018, with 22.5% BioLPG made from Used Cooking Oil (UCO) in 2020. There is 90kt of category 3 tallow available in Ireland which is currently largely exported to European plants<sup>3</sup>. With investment, there could be an opportunity for domestic production of BioLPG using this abundant feedstock, either through gasification or transesterification, creating a sustainable, homegrown supply of biofuels.

Most DME currently in the market is produced via catalytic synthesis of methanol and so by switching to renewable methanol as the feedstock, plants can immediately start producing rDME. There is established production technology for rDME (catalytic synthesis from renewable methanol), which means rDME can be immediately produced to support decarbonisation. Additionally, it is produced using advanced technologies such as gasification and pyrolysis, and development can support the production of other fuels across all sectors. Gasification and pyrolysis can use a wider range of feedstocks, including those immediately available, which gives opportunity for low cost and low carbon DME production.

The industry needs financial support that helps innovation and development across the advanced biofuels sector. This includes stimulating supply and demand for products such as rDME and supporting R&D as well as the piloting of plants that use advanced biofuel feedstocks, whilst maintaining competition for current biofuels. This would help overcome the high production costs experienced with advanced biofuel production and support market growth.

#### IV. Renewable Fuels of Non-Biological Origin (RFNBO)

What should be the key considerations – social, economic, and environmental, in establishing in 2025 a sub-target for renewable fuels of non-biological origin (RFNBO) and associated buyout?

LGI supports the move to develop the sub-target as an overreliance on biological feedstocks could lead to volatility in the supply of renewable fuels. However, these targets should not be met solely via green hydrogen. BioLPG and rDME can be effective routes to meet these targets owing to their versatility and variety of feedstock options. A 2025 start-date does not give sufficient time for the mass sourcing of renewable energy sources and green hydrogen required for power-to-x BioLPG and rDME and so the target should be calibrated accordingly with additional support considered to incentivise domestic production.

Both rDME and BioLPG can be produced via power-to-x technology, an attractive solution for meeting targets on renewable fuels of non-biological origin. Renewable power can supply energy for the electrolysis of low-carbon hydrogen and  $CO_2$  to produce BioLPG or rDME.

This has two major advantages over other power-to-x routes such as the electrolysis of water to produce hydrogen. BioLPG and rDME can be used immediately in vehicles to reduce transport emissions whereas fuel cell technology is very expensive and requires major overhauls to charging infrastructure and the vehicle stock. Also, liquid rDME is an attractive hydrogen carrier. The volumetric energy density of rDME is higher than that of liquid hydrogen and so a litre of rDME contains more hydrogen. Liquid rDME is easily transportable and can be used directly in industrial settings or converted back to hydrogen through a simple process before use.

<sup>&</sup>lt;sup>3</sup> https://assets.gov.ie/219662/45a45d3e-ee44-4a3f-917c-d86fc792b0bd.pdf



#### V. Additional Certificates to Incentivise Certain Renewable Transport Fuel (RTF) Supply

What considerations should be included in this review – including possible social, economic, and environmental impacts?

The security of indigenous fuel supply and the economic impacts of fuel shortages should be key considerations for the review. LGI supports the Government's recent decision to incentivise certain renewable transport fuels such as HVO, which can contribute to further decarbonising the hard to abate HDV and road haulage sectors. By targeting production and supply by small indigenous biofuel companies and the agricultural waste feedstock supply chains supporting these businesses, we can ensure sustainable Irish production is not put at a competitive disadvantage and that we do not become overly reliant on imported biofuels over time.

BioLPG has the potential for development as an advanced biofuel in Ireland from biological sources in the coming years. The LPG EU sector is investing in the research and development of second generation BioLPG, which as an advanced biofuel, will place a stronger focus on advanced processes, using wastes and lignocellulosic feedstocks that typically achieve greater efficiencies and deliver greater GHG savings. BioLPG produced from the HVO process, where the feedstock is certified from non-high-ILUC sources should qualify for the new 'Development' status that was introduced on 1 April 2023. HVO renewable propane can be co-processed along with HVO (biodiesel/biogasoil) in the same production facility.

# **Section 3: Supporting Compliance**

#### I. EU Greenhouse Gas (GHG) Intensity Reduction Target

Would overall compliance be better achieved if the renewable transport fuel obligation were solely based upon a greenhouse gas intensity reduction rather than the current renewable energy obligation?

LGI agrees that a renewable transport fuel obligation solely based upon a greenhouse gas intensity reduction may lead to better overall compliance. However, any changes made to the renewable transport fuel obligation should be focused on providing flexibility and long-term certainty to producers. The industry is highly susceptible to external shocks, such as volatile feedstock prices and producers may have to absorb or pass on costs unexpectedly. To ensure a smooth transition long-term policy certainty is required to allow the low-carbon biofuel market to develop. High fines and more stringent compliance could risk disrupting this transition through reduced revenue to invest in low carbon fuels (BioLPG and rDME) and production technology, such as pyrolysis and gasification. Also, if non-compliance costs are set at a value that cannot be met by industry, then there is a risk of passing on the higher costs to consumers.

# Would you agree with introduction of a greenhouse gas intensity reduction basis for the 2025 obligation period?

LGI agrees with the introduction of a greenhouse gas intensity reduction basis for the 2025 obligation period. Ireland has a high dependence on fossil fuels for transport, which results in significant GHG and air pollution and so causes negative societal health impacts. This is recognised as a key public health issue by the Environmental Protection Agency. This basis should open up consideration for more lower carbon and transition fuels which will help Ireland meet its short-term GHG reduction targets while investing in long-term solutions. BioLPG and rDME have been proven to be effective alternatives to petrol and diesel, with significant reductions in GHG and air pollution levels.

LGI member companies are invested in the low-carbon future for the Irish economy. The liquid gas industry has committed to 100% renewable fuels by 2040 and so will support Ireland with its carbon reduction targets, and demand for renewable fuels – which is expected to increase. LGI members are



committed to this target and invest significantly in R&D to ensure fuels which are successful in lowering carbon emissions, can be 'dropped in' with no or minimal adjustments on existing combustion infrastructure, and are competitively priced.

# II. Sustainability and GHG Criteria Compliance –European (EU) Database & Supervision of Certified Bodies

From your perspective, where does the focus need to be over the next two years concerning the implementation of the EU measures for oversight of sustainability and GHG reduction for renewable energy in transport?

The industry is moving towards decarbonisation – the liquid gas industry has announced by 2040 all fuels will be from renewables. To ensure a smooth transition long-term policy certainty is required to allow the low-carbon biofuel market to develop. While the EU want to ensure that bodies such as NORA enhancing their audit beyond the Proof of Sustainability Certificates provided by the voluntary schemes and ensure that those providing biofuels in Ireland audit the supply chain and verify the associated emissions from biofuel production, a more stringent compliance could risk disrupting the transition to biofuels through reduced revenue to invest in production technology such as pyrolysis and gasification. If compliance costs are at level that cannot be met by industry, then there is a risk of passing on the higher costs to consumers and reducing uptake of new low-carbon fuels.

#### III. Safeguarding Against Risk of Fraud and Other Indirect Effects

Concerning the proposal to establish a working group and a voluntary vulnerability assessment concerning biofuel fraud risk:

Do you agree with this approach in addressing the recommendations of the biofuel study?

LGI supports the proposal to establish a working group to progress a voluntary vulnerability assessment of the current and projected future biofuels supply into Ireland, however we urge the Department to work closely with the biofuel industry in assessing these risks and potential impacts.

#### If so, what are your views concerning the scope of the assessment?

Advanced development fuel feedstocks, such as UCO and tallow are crucial to short- and medium-term decarbonisation of the economy. For example, rDME is an advanced biofuel which can be used as a replacement for diesel, producing up to 85% less greenhouse gas emissions, and less NOx than diesel and oil<sup>4</sup>. Using feedstocks listed in Annex IX in the Renewable Energy Directive, rDME can deliver large GHG savings, e.g., producing rDME from cow manure prevents methane being released to the atmosphere meaning the carbon intensity can be negative at -278gCO2e/MJ<sup>5</sup>. In Ireland, 42% of household waste is incinerated<sup>6</sup>. Producing rDME from municipal waste offers a saving of more than 70% compared to EfW incineration<sup>7</sup>.

Downgrading UCO will limit Ireland's largest biodiesel feedstock and disincentive HVO and BioLPG production. This restricts the advancement of these promising low-carbon fuels into the market. As suppliers seek to fill gaps in demand from the limit, there is a risk of increased uptake in fuels that contribute to higher ILUC in the interim meaning food supply may be disrupted. There is also

<sup>&</sup>lt;sup>4</sup>https://www.aboutdme.org/aboutdme/files/cclibraryfiles/filename/000000004182/rDME Fact Sheet Indust rv.pdf

<sup>&</sup>lt;sup>5</sup> https://oberonfuels.com/about-dme/dme-basics/

<sup>&</sup>lt;sup>6</sup> https://www.epa.ie/our-services/monitoring--assessment/waste/national-waste-statistics/municipal/

<sup>&</sup>lt;sup>7</sup> https://kew-tech.com/



opportunity to domestically supply tallow to support the development of a domestic bioenergy sector, specifically from agri-food waste and reduce ILUC dependence.

#### IV. High Indirect Land Use Change (ILUC) risk

# Do you agree with the proposed trajectory of decrease in high ILUC-risk biofuels supply to 2030, as set out in the policy statement?

LGI agrees with the proposed trajectory of decrease in high ILUC-risk biofuels supply, however it's crucial that this transitional approach to low ILUC-risk feedstocks is supported by the Government. Too sharp a decrease would have a critical impact on the availability and supply of critical renewable fuels such as BioLPG, which continue to play a significant role in decarbonising Ireland's transport sector.

Implementing this decrease also presents practical concerns as there is currently no way to certify biofuels as 'low ILUC'. Compliance with EU criteria is audited by voluntary schemes that certify a fuel as 'sustainable' under the criteria set in the currently applicable Renewable Energy Directive for biofuels and bioliquids, rather than as high or low ILUC. Without specific certification available in line with the language used in this policy, it will be difficult for biofuel producers to confirm their products are compliant.

### Should this be reduced annually, or every 2 or 3 years?

The indicative trajectory of annual reduction from 2023 to 2030 with an annual reduction would be acceptable.

#### Should the reduction to 0% be accelerated, e.g., by 2025 or earlier?

Placing an earlier ban on biofuels from high-risk ILUC would have an immediate and critical impact on the availability and supply of critical renewable fuels such as BioLPG, which continue to play a significant role in decarbonising Ireland's transport sector. Supply contracts are in currently in place and biofuel suppliers need time to ensure that any potential high ILUC feedstocks are exhausted. 2030 would provide a sufficient timeline for this, however a compromise of 2027-2028 would be acceptable.

LGI estimates that it needs 5 to 10 years to supply second generation/advanced biofuels in Ireland. This ambition involves a vertical integration strategy with producers to gain more control of the BioLPG supply-chain. This is happening in other European markets with an ambition for further investment across Europe. Ireland has an opportunity to secure indigenous production of rDME if it is able to offer the right commercial conditions for future plant location.

As outlined above, the Government should seek to incentivise the production of BioLPG and development fuels like rDME, by expanding the terms of reference for the Climate Action Fund to consider BioLPG and rDME to facilitate research and development funding for the sector. LGI seeks alignment with the EU position in order to mature, alongside the EU biodiesel market, advanced biofuel feedstocks in the medium term and to ensure stability and competitive prices for rural consumers in the transport and heat sectors as we strive to reach our 100% decarbonisation goal by 2040.

Across the European biofuel and feedstock market, palm oil contributed to just under a fifth of the feedstocks used to produce bio and renewable diesel (FAME and HVO) in 2021<sup>8</sup>. An early ban on high-ILUC feedstocks presents a supply problem for the European feedstock and biofuel market.

-

<sup>8</sup> USDA, 2021



Whilst high-risk ILUC feedstocks contribute to a smaller percentage of the biofuels supplied in Ireland, we anticipate a tighter European biofuel market as producers and obligated suppliers across Europe accelerate their efforts to meet high ILUC-risk biofuels supply targets.

# Section 4: Ongoing Review of Evidence and Research Supporting the Policy

Concerning the proposal for a working group to progress further examination and research, addressing the policy challenge of EU obligations and domestic targets:

Do you agree with this approach in addressing the conclusion in the Biofuel study?

LGI agrees with the approach of establishing a working group to address the challenge of achievement of EU renewable energy obligations and ambitious domestic targets for biofuels. We urge the Department to work closely with the biofuel industry in its ongoing research.

#### If so, what are your views concerning the scope of the examination and research needed?

The conflict between the national target for supply of biofuel under the Climate Action Plan and the EU Directive limits on biofuels from UCO and category 3 tallow is an important area for examination, as it presents a huge obstacle to the Irish biofuels market. There is approximately 90kt of category 3 tallow available in Ireland, which is currently exported to the Netherlands for HVO productions rather than processed domestically<sup>9</sup>. Advanced development fuel feedstocks such as UCO and tallow are crucial to short and medium-term decarbonisation of the economy. The limit on UCO and category 3 tallow to less than 1.7% of the energy content of transport fuel impedes the development of the low-carbon fuel market and restricts the advancement of these promising low-carbon fuels into the market.

There is inconsistent application of the measurement of feedstocks for different fuel types which is exacerbating this issue. Under a new x1.5 'Development' multiplier status introduced on April 1<sup>st</sup>, 2023; FAME (Fatty Acid Methyl Ester) biodiesel qualifies where the feedstocks are tallow. Category 1 and Category 2 tallow are double counted under this system, whereas at present Category 3 tallow is only single counted. BioLPG produced from the HVO process, where the feedstock is certified from sustainable sources should also qualify for this 'Development' status, as HVO renewable propane can be co-processed along with HVO (biodiesel/biogasoil) in the same production facility.

In addition to the policy indicators, evidence and research identified in this policy statement, are there other evidence-based inputs which need to be considered to support future policy development and implementation?

LGI welcomes the Government's long-term strategy to reduce the sectors reliance on oil by implementing policy measures that will encourage a switch to alternative fuels and technologies. However, the Government must seek to incentivise research, development, and investment in these new fuel technologies. LGI recommends three policy interventions, as set out below:

Research and Development – Investment in R&D is imperative to continue progressing the
development of advanced feedstock options. This will act to further promote the sustainability
of biofuels supply. Our sector has demonstrated significant progress in feedstock
development since the introduction of BioLPG to the Irish market in 2018 and would like to
see the Government investing in further research to support Ireland's climate ambitions.

<sup>&</sup>lt;sup>9</sup> Ó Cléirigh, A Review of Requirements and Constraints on Biofuels in Ireland Arising from RED II and National Targets, 2022. Available at: <a href="https://assets.gov.ie/236620/2bc87dee-edf4-45e6-a342-b74cf71d5e21.pdf">https://assets.gov.ie/236620/2bc87dee-edf4-45e6-a342-b74cf71d5e21.pdf</a>



- Indigenous Production HVO production is increasing in Europe, driven by the revised EU-RED and renewable transport fuel targets. The Irish market is likely to be dependent on imports in the short-medium term without investment in domestic production but there is significant potential, however, for investment in indigenous production facilities in Ireland. Opportunities include new HVO plants, coprocessing at existing refineries and commercialising new and novel processes for bio-propane synthesis.
- Financial support Financial incentives should be put in place to attract future investment for
  the construction of domestic plants, such as a contract for difference scheme, to give
  investors' confidence throughout a strong, stable carbon price. Increased investment will
  facilitate the longer-term development of plants for the domestic production of renewable
  fuels, which will in turn lead to the creation of green jobs, as well as securing supplies that will
  support Ireland meet its decarbonisation targets.

### **Contact Details**

For further updates, you can find us on:

Email: info@lgi.ie

Twitter: @LiquidGasIE

LinkedIn: Liquid Gas Ireland



#### Q1. What do you think are the key considerations to be considered within this review?

The Maxol Group believes rail transport should be included within the scope of RTFO.

Maxol believes the current scope places a disproportionate burden on road transport and private motorists and the road freight industry to achieve the targets set out in the Climate Action Plan.

This approach will make it increasingly difficult for the RTFO scheme to meet the challenging targets in the CAP. Including rail will ensure the government policy is aligned with RTOII.

Key considerations should include the sale of renewable diesel and other low carbon fuels such as hydrogen in rail transport.

## Q2. Do you agree or disagree with the proposed review timeline, and reasons why?

Maxol believes including rail within the scope of RTFO by 2025 is a reasonable timeframe, noting that this proposed action has been under active discussion for several years and that CIE larnród Eireann already include B7 on their fuel mix.

# Q3. Do you agree that existing supports for cross-sector renewable electricity supply are sufficient to incentivise renewable electricity in transport consumption?

Maxol believes electricity used for road transport should be included in the RTFO and that this will help to incentivise renewable electricity in road transport.

Currently there are very limited supports available to forecourt operators who wish to invest in "on the go" charging.

# Q4. If you agree, do you think that there is merit in reviewing this position again in 2025 or a later date?

Maxol agrees that the inclusion of renewable electricity should be included in, or before, 2025 to help facilitate investment in high-speed forecourt charging.

# Q5. Do you think that models such as in the Netherlands should be explored further for the benefits for electrification of transport?

Nil

# Q6. What incentives would you like to see for supply of renewable transport fuels in aviation and maritime fuels?

Maxol has no strong views on potential incentives for the supply of renewable transport fuels in the aviation and maritime sectors.

Q7. What do you see as the key challenges or enablers to incentivise the supply of renewable transport fuels in aviation and maritime sectors?

Nil

Q8. Do you agree with the inclusion of non-road mobile machinery (NRMM) within the RTFO?

Maxol has no strong views on the inclusion of NRMM within the RTFO.

Q9. If this were introduced as a reduced RTFO rate initially what contribution would be appropriate – 75%, 50%, 25% or other?

Nil

Q10. In your view what should be the key considerations for this policy proposal?

Nil

Q11. What is the appropriate balance of consideration of benefits and impacts including social, economic and environmental considerations?

Nil

Q12. Given the proposed trajectory of increase in the RTFO to meet ambitious biofuel blending targets in the climate action plan, what steps can be taken within this policy to avoid future biofuel lock...

Maxol accepts that the regulations should be periodically reviewed however frequent changes can be counterproductive as this introduces a high level of uncertainty around investment decisions and supply chain options.

Maxol believes it is appropriate to make changes where security of supply is a potential issue.

Q13. What safeguards and mitigation could be included, within this policy or related Government policy, against possible socio-economic and distributional impacts, to ensure just transition?

The issue of future biofuel lock in poses a difficult question that has challenged member states since the introduction of the EU wide fuel policy in 2003.

At that time was feared that biofuel legislation would lock in first generation biofuels thus delaying investment in developing second generation biofuels. These fears proved to be unfounded as the "lock in" approach was also seen as a "policy promise lock-in" approach providing certainty and credibility for investment in second generation biofuels.

Maxol believes that this approach is a more pragmatic approach which will yield results in the long term.

### Q14. Do you agree or disagree with this approach? And why?

Maxol believes the current minimum percentage of ethanol in petrol of 5.5% is appropriate noting that, to achieve their obligations, most suppliers will blend at higher rates (up to 10%).

The minimum percentage of 5.5% is appropriate as this provides flexibility to fuel suppliers to determine the optimum blend rate.

Q15. Do you agree or disagree with the proposal for a higher national advanced biofuel obligation rate, beyond EU requirements?

Maxol believes that the increases in the Advanced Biofuels Obligation to 1% in 2024 and 1.5% in 2025 is appropriate and that, given the limited supply of Annex IX Part A biofuels, there is no advantage in moving beyond the EU requirements.

Q16. What should the Department consider in setting the advanced biofuel obligation rate, including social, economic and environmental impacts?

Nil

Q17. What should be the key considerations – social, economic, and environmental, in establishing in 2025 a sub-target for renewable fuels of non-biological origin (RFNBO) and associated buy-out?

Maxol believes a target for RFNBO's in transport is appropriate however the introduction of these targets by 2025 is unrealistic given the policy's uncertainty around RFNBO's and also the lack of financial supports.

Maxol believes that the Government's soon to be published hydrogen strategy for Ireland, and the EU's delegated Acts for RFNBO production and certification will facilitate constructive discussions around RFNBO targets.

# Q18. What considerations should be included in this review – including possible social, economic and environmental impacts?

Maxol accepts that regulations and specifications should be reviewed and adjusted over time however frequent reviews can be counterproductive as this introduces a high level of uncertainty around investment decisions and potential supply chains.

Maxol notes that the recent process to facilitate the new multiplies for HVO, tallow, and bio methane was less than ideal due to the very late changes to the proposed multiples.

Given the international nature of Ireland's fuel supply, this approach damaged Ireland's reputation as a place to do business.

Maxol believes the Government should adhere to its own published policies and trajectories.

Q19. Would overall compliance be better achieved if the renewable transport fuel obligation were solely based upon a greenhouse gas intensity reduction rather than the current renewable energy obligation?

Maxol believes a GHG target is appropriate as this will incentivise the use of waste-based biofuels.

Q20. Would you agree with introduction of a greenhouse gas intensity reduction basis for the 2025 obligation period?

Maxol believes that the EU Database on RTFs is a key tool in ensuring compliance around the sustainability of the biofuel supply chain.

Q21. From your perspective, where does the focus need to be over the next two years concerning the implementation of the EU measures for oversight of sustainability and GHG reduction for renewable ener...

Maxol also believes that the 1.7% limit on Annex IV Part B feedstocks should be reviewed and removed as the database provides adequate protection against the potential for fraud in the supply of these feedstocks.

### Q22. Do you agree with this approach in addressing the recommendations of the biofuel study?

Maxol supports the establishment of a working group to assess the vulnerabilities of current and projected biofuel supply chains in Ireland.

Q23. If so, what are your views concerning the scope of the assessment?

Nil

Q24. Do you agree with the proposed trajectory of decrease in high ILUC-risk biofuels supply to 2030, as set out in the policy statement?

Maxol agrees that the proposed trajectory of decrease in high ILUC risks biofuels supply.

Q25. Should this be reduced annually, or every 2 or 3 years?

Nil

Q26. Should the reduction to 0% be accelerated, e.g. by 2025 or earlier?

Yes. It's not an issue.

#### Q27. Observations sought:

Concerning the proposal for a working group to progress further examination and research, addressing the policy challenge of EU obligations and domestic targets:

Do you ag...

Maxol believes the Government should discuss the 1.7% cap on Annex IV Part B feedstocks with the Commission given Ireland's high reliance on these feedstocks.

Q28. If so, what are your views concerning the scope of the examination and research needed?

Maxol believes high biodiesel blends B20+ offer a practical path to decarbonisation and that further research is needed in this area, particularly on the impact of higher bio-diesel blends on the national fleet.

Q29. In addition to the policy indicators, evidence and research identified in this policy statement, are there other evidence-based inputs which need to be considered in order to support future policy...

Nil



# Mercury Renewables Renewable Transport Fuel Policy Consultation Response

### Introduction

Mercury Renewables Ltd ("Mercury") welcomes the opportunity to contribute to the Department of Transport's (the "Department") public consultation on Renewable Transport Fuel Policy. Mercury has been developing an onshore wind farm in, Co. Mayo for over a decade. In December 2021, we launched our intention to produce green hydrogen through an electrolyser powered by the wind farm to advance the local economy and further contribute to Ireland's net-zero carbon emission targets.

Mercury notes Ireland's legally binding net-zero targets, as set out under the *Climate Action and Low Carbon Development (Amendments) Act 2021*. This landmark legislation provides for the annual publication of a national Climate Action Plan, setting out a clear framework and roadmap of the necessary actions required to achieve these climate targets.

At present, the transport sector is responsible for approximately 18–20% of Ireland's carbon emissions. The most recent iteration of the Climate Action Plan has set a sectoral emissions ceiling target of at least 50% by 2030. Therefore, it is essential that the Government broadens its focus to ensure that effective policy change can contribute to the meeting of these legally binding targets.

Currently, there is a concern that the definition of the Renewable Transport Fuel Obligation ("RTFO"), set out under Part 5A of the National Oil Reserves Agency Act 2007 (the "2007 Act"), is too narrow. The expansion of this definition to include forms of transport other than road transport is a simple yet meaningful measure that can be undertaken to remove one of the hurdles that has the potential to prevent Ireland from meeting its climate.

In light of the recent provisional agreement on the revision of the Renewable Energy Directive between the European Parliament and Council ("RED III"), this consultation presents a timely opportunity to consider Ireland's energy policy in respect of the transport sector, and how the targets outlined at EU level ought to be incorporated into the Irish domestic framework.



# 1. Expansion of the RTFO

For the purposes of this submission, the potential opportunities of expanding the RTFO in the context of rail transport will be emphasised. In addition, Mercury believes that certain actions ought to be taken when considering the viability of including nonroad mobile machinery ("NRMM") in the RTFO.

Mercury welcomes the fact that Irish Rail is currently examining the potential of green hydrogen to be used in certain services. Given Galway's designation as a hydrogen valley, and the extensive rail networks in the North-West of Ireland, this geographic region would appear to offer a unique opportunity for trialling green hydrogen in rail transport. Mercury is keen to engage with the Department, Irish Rail and other interested stakeholders to establish how Mercury can be of assistance in developing a strategy in this regard.

Mercury notes Hydrogen Mobility Ireland's response to the Consultation on the National Hydrogen Strategy, where it described hydrogen as a "strong contender for decarbonising non-road mobile machinery". Mercury submits that there is huge potential for the use of green hydrogen in plant and agricultural machinery, provided that the appropriate policy incentives are put in place to encourage the transition to renewable energy. Companies such as JCB, Volvo, Caterpillar and others are already manufacturing combustion and fuel cell vehicles to run on hydrogen, however the first units off the production line will be expensive and incentives are required to encourage uptake of these new vehicles and infrastructure required to fuel them. In considering whether to expand the RTFO to include NRMM, the views of all affected stakeholders should be taken into account. To this end, Mercury calls for the establishment of a cross-departmental working group including the Department of Transport, the Department of Enterprise, Trade and Employment, and the Department of Agriculture, Food and the Marine to examine the role of hydrogen in NRMM.

# 2. Renewable Energy Directive

RED III proposes to expand the definition of transport to include the maritime and aviation sectors. Mercury acknowledges that the RTFO currently provides for certificates to be granted for the supply of aviation and maritime fuels. In conjunction with the continuation of this incentive, accelerating the development of the infrastructure required to facilitate the supply of renewable fuels to these sectors must become a top priority.

<sup>&</sup>lt;sup>1</sup> Gavin & Doherty Geosolutions. Hydrogen consultation: Summary report, Appendix A. Summary of Hydrogen Consultation Responses by Question. <a href="https://www.gov.ie/pdf/?file=https://assets.gov.ie/255434/58da6e22-d642-4fae-b13e-4e161ecb62f8.pdf#page=null">https://www.gov.ie/pdf/?file=https://assets.gov.ie/255434/58da6e22-d642-4fae-b13e-4e161ecb62f8.pdf#page=null</a>



Specifically as concerns aviation, Mercury notes with great interest the submission of hydrogen plane producer ZeroAvia to the Consultation on the National Hydrogen Strategy. ZeroAvia highlighted that Irish airports could be well adapted to the use of direct hydrogen before long. The submission further stated that "[a]s hydrogen is established as a fuel source for a significant proportion of a medium to

larger airport's flight services, the growing scale of electrolysis that would be required to meet this demand may necessitate alignment with regional-scale hydrogen production clusters", indicating that this could be facilitated "by connecting the airport environment to a regional-scale electrolysis facility through a pipeline transmission network". Mercury is committed to working in collaboration with partners across industry and the Department to play its part in ensuring that the necessary capabilities are in place as soon as is practicable. Mercury submits that expediting the widespread use of renewable fuels in aviation is of paramount importance, given the continued growth of the Irish aviation market, and the likelihood that this sector will be considered in our RED III transport targets for 2030.

The provisional RED III agreement sets a binding combined sub-target of 5.5% for advanced biofuels (generally derived from non-food-based feedstocks) and renewable fuels of non-biological origin ("RFNBOs") – mostly renewable hydrogen and hydrogen-based synthetic fuels – in the share of renewable energies supplied to the transport sector by 2030. Within the 5.5% sub-target, there is a minimum requirement of 1% of RFNBOs. It is notable that this a reduction on the 1.5% for RFNBOs proposed in a previous iteration of the Renewable Energy Directive.

In implementing the Directive, Mercury suggests that Ireland should set a higher than mandated national target for RFNBOs and position itself as a leader in this space. Mercury's pioneering Firlough Wind Farm and Hydrogen Plant (the "Firlough Project") will be at the forefront of helping Ireland to achieve a more ambitious RFNBO sub-target. Once fully operational, the Firlough Project is expected to generate more than 4,500 tonnes of hydrogen every year, offsetting more than 50,000 kt CO<sub>2</sub> p.a. when used to displace fossil fuels in the transport sector.

The provisional agreement on RED III purports to give Member States latitude to choose between:

a) a binding target of 14.5% reduction of greenhouse gas intensity in transport from the use of renewables by 2030; or

<sup>&</sup>lt;sup>2</sup> Gavin & Doherty Geosolutions. Hydrogen consultation: Summary report, Appendix A. Summary of Hydrogen Consultation Responses by Question. <a href="https://www.gov.ie/pdf/?file=https://assets.gov.ie/255434/58da6e22-d642-4fae-b13e-4e161ecb62f8.pdf#page=null">https://www.gov.ie/pdf/?file=https://assets.gov.ie/255434/58da6e22-d642-4fae-b13e-4e161ecb62f8.pdf#page=null</a>



b) a binding target of at least 29% share of renewables within the final consumption of energy used in transport by 2030.

Mercury submits that the second of these options is to be preferred. Adopting a binding target with an identified share of renewables in the transport sector has the considerable advantage of being more straightforward to administer, making it easier to hold individual operators within the sector to account for non-compliance with their obligations.





PACE (a division of Fexco)

Cyril Moloney

Q1. What do you think are the key considerations to be considered within this review?

Nil

Q2. Do you agree or disagree with the proposed review timeline, and reasons why?

Nil

Q3. Do you agree that existing supports for cross-sector renewable electricity supply are sufficient to incentivise renewable electricity in transport consumption?

Nil

Q4. If you agree, do you think that there is merit in reviewing this position again in 2025 or a later date?

Nil

Q5. Do you think that models such as in the Netherlands should be explored further for the benefits for electrification of transport?

Nil

Q6. What incentives would you like to see for supply of renewable transport fuels in aviation and maritime fuels?

PACE is a global software platform and customer success program supporting Aviation stakeholders in carbon reduction. We provide ESG reporting data and partner with customers to unlock growth opportunities, reduce financial risk, and enable CO2 reduction aligned with Paris Agreement net zero commitments. As a subsidiary of Fexco Group, PACE has a strong innovation track record.

Our platform automatically captures flight data and calculates fuel burn, CO2 emissions, and emissions intensity metrics using industry-standard methodologies. PACE's technology predicts future utilization and performance to meet carbon emission targets. It serves as a benchmark for the aviation industry and extends support to maritime, transport, and logistics sectors. With live flight tracking data and industry-standard methodologies, PACE provides accurate carbon emissions data for individual seats or entire fleets. We collaborate with strategic partners like CH Aviation, Ishka, and IMPACT for reliable data and metrics.

Our customer base includes banks, investors, asset managers, lessors, and government agencies, supporting their ESG strategies and carbon reduction initiatives.

The aviation industry is actively working towards emissions targets. The World Economic Forum's 'Clean Skies for Tomorrow Coalition' aims for 10% SAF usage by 2030, up from 0.1% in 2021. Airlines, manufacturers, and aircraft leasing companies are partnering with suppliers to achieve their SAF goals.

At the local level, focused incentivisation can drive progress. Key approaches include:

- \*Subsidies and grants: Governments can provide financial support to renewable fuel producers in aviation and maritime sectors, offsetting production costs and enhancing economic viability.
- \*Tax incentives: Offering tax credits or reduced rates for renewable aviation and maritime fuel producers, including export tax-free status, can promote sustainability.
- \*Research and development funding: Allocating funds for renewable aviation and maritime fuel research and development drives cost reduction and process efficiency.
- \*Renewable fuel mandates: Establishing mandates for renewable fuel usage in aviation and maritime operations creates a guaranteed market demand, incentivising sustainable alternatives.
- \*Public-private partnerships: Collaboration among governments, industry stakeholders, and research institutions accelerates the development and deployment of renewable transport fuels through knowledge sharing and joint funding.
- \*Green procurement policies: Implementing policies that prioritize renewable transport fuel usage in aviation and maritime fleets stimulates demand and sets an example for private entities.
- \*Carbon pricing: Governments can implement carbon pricing or cap-and-trade systems, making fossil fuels costlier and renewable fuels more competitive.
- \*Public procurement policies: Governments prioritizing the purchase of renewable aviation and maritime fuels create a market and drive down production costs.
- \*Government underwriting: Governments can guarantee the production and sale of SAF, providing stability until a well-organised market emerges.

By combining these approaches with industry collaboration and technological advancements, significant progress can be made in achieving carbon reduction targets in aviation and maritime sectors.

### Q7. What do you see as the key challenges or enablers to incentivise the supply of renewable transport fuels in aviation and maritime sectors?

The widespread adoption of Sustainable Aviation Fuel (SAF) faces significant challenges. The two primary barriers are the high cost of production and the insufficient availability of feedstock to meet the demand for SAF. SAF production is more expensive than conventional jet fuel due to lower quantities produced and the need for new infrastructure. Airlines, which rely heavily on fuel, are reluctant to purchase more expensive SAF, resulting in a lack of incentive for producers to invest in increased production. Moreover, the limited infrastructure for renewable fuel production, storage, and distribution makes it difficult for airlines and shipping companies to access SAF.

Policies and regulatory uncertainty also hinder the use of SAF. The industry requires long-term policy commitments from governments to encourage SAF adoption, such as subsidies or incentives that make SAF prices comparable to conventional jet fuel. Although some countries have introduced SAF policies, the lack of a coordinated global approach poses challenges. Additionally, there is a shortage

of feedstock to produce sufficient quantities of SAF and expanding the list of eligible sustainable feedstock is crucial to scaling up production. Crop-based biofuel, for example, is currently ineligible due to sustainability concerns.

Technological readiness is another obstacle. Advancements are necessary to improve the efficiency, cost-effectiveness, and overall sustainability of renewable fuel production processes. Overcoming technological barriers and achieving commercial-scale viability are essential for incentivizing the supply of renewable fuels.

Several enablers can help overcome these challenges and promote the use of renewable transport fuels. Increasing public awareness and demand for sustainable aviation and maritime transport can create a market pull for renewable fuels. Education campaigns, consumer awareness initiatives, and transparency in fuel sourcing and emissions can drive demand and incentivize the supply of renewable transport fuels.

International collaboration is vital to share knowledge, resources, and best practices. Cooperation among countries, industry players, and international organizations can accelerate the development and deployment of renewable fuels, minimizing duplication of efforts and facilitating technology transfer.

Active engagement and commitment from aviation and maritime industry stakeholders are crucial. Collaborations with governments, fuel producers, and other stakeholders can establish supply chains, invest in infrastructure, and advocate for sustainable practices. Demonstrating the economic viability and environmental benefits of renewable fuels further encourages industry engagement.

Policy and regulatory support play a significant role in incentivizing renewable transport fuels. Governments can establish stable and supportive frameworks, including mandates, targets, subsidies, tax incentives, and other financial mechanisms. These policies provide market certainty and encourage investment in renewable fuel production.

With government support, international collaboration, technological advancements, and voluntary sustainability programs, it is possible to overcome the challenges and promote the use of renewable transport fuels in the aviation and maritime sectors.

Q8. Do you agree with the inclusion of non-road mobile machinery (NRMM) within the RTFO?

Q9. If this were introduced as a reduced RTFO rate initially what contribution would be appropriate – 75%, 50%, 25% or other?

Nil

Q10. In your view what should be the key considerations for this policy proposal?

Nil

Q11. What is the appropriate balance of consideration of benefits and impacts including social, economic and environmental considerations?

Nil

Q12. Given the proposed trajectory of increase in the RTFO to meet ambitious biofuel blending targets in the climate action plan, what steps can be taken within this policy to avoid future biofuel lock...

Nil

Q13. What safeguards and mitigation could be included, within this policy or related Government policy, against possible socio-economic and distributional impacts, to ensure just transition?

Nil

Q14. Do you agree or disagree with this approach? And why?

Nil

Q15. Do you agree or disagree with the proposal for a higher national advanced biofuel obligation rate, beyond EU requirements?

Nil

Q16. What should the Department consider in setting the advanced biofuel obligation rate, including social, economic and environmental impacts?

Nil

Q17. What should be the key considerations – social, economic, and environmental, in establishing in 2025 a sub-target for renewable fuels of non-biological origin (RFNBO) and associated buy-out?

Nil

Q18. What considerations should be included in this review – including possible social, economic and environmental impacts?

Nil

Q19. Would overall compliance be better achieved if the renewable transport fuel obligation were solely based upon a greenhouse gas intensity reduction rather than the current renewable energy obligation?

The EU has reached a provisional agreement to revise the Emissions Trading System (ETS) for aviation as part of the "Fit for 55 in 2030 package" aimed at reducing greenhouse gas emissions by 55%. The new law integrates the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) and phases out free allowances by 2026. It also promotes the use of sustainable aviation fuels and addresses non-CO2 emissions. Considerations for switching to a greenhouse gas intensity reduction for the renewable transport fuel obligation (RTFO) include measurement accuracy, emission factors, and market stability.

Measuring emissions accurately is a key advantage of the greenhouse gas intensity reduction approach, as it directly assesses the environmental impact of transport fuels. The current renewable energy obligation may not fully account for all emissions associated with renewable fuels. Technologies like PACE enable precise carbon emissions analysis for flights, airlines, airports, and specific aircraft, providing accurate data for compliance.

An intensity-based obligation incentivises fuels with lower emissions, irrespective of their renewable energy content. This promotes the use of innovative low-carbon solutions, fostering diversity and

competition in the renewable fuel market. It also ensures technology neutrality, allowing for the adoption of various solutions that contribute to greenhouse gas reductions, including emerging technologies.

Shifting the focus to greenhouse gas intensity reduction encourages investment and research into technologies that deliver significant emissions reductions. It broadens the range of options and promotes the exploration of novel approaches to decarbonising transport fuels.

However, challenges must be addressed. Implementing a greenhouse gas intensity-based obligation requires accurate measurement and verification of emissions throughout the fuel lifecycle. Establishing reliable and standardized methods for measuring emissions can be complex, necessitating additional monitoring and reporting mechanisms. The introduction of frameworks like PACE enables institutions to publish regular emissions data, requiring accurate tracking and management of carbon emissions for reporting and decision-making purposes.

Consistent and up-to-date emission factors for different fuel types are crucial to ensure accurate assessments. The variability of emission factors due to technological advancements and variations in feedstock sources needs to be considered.

Shifting from a renewable energy obligation to a greenhouse gas intensity-based approach may require adjustments to existing policies, regulations, and compliance frameworks. Maintaining a clear and predictable regulatory environment is essential to ensure market stability and provide confidence to investors and stakeholders in the renewable fuel sector.

In summary, transitioning to a greenhouse gas intensity reduction for the RTFO offers benefits by accurately reflecting the environmental impact of transport fuels and incentivising a broader range of low-carbon options. However, careful consideration of measurement methodologies, emission factors, and the overall policy framework is necessary for effective implementation and compliance.

Q20. Would you agree with introduction of a greenhouse gas intensity reduction basis for the 2025 obligation period?

Nil

Q21. From your perspective, where does the focus need to be over the next two years concerning the implementation of the EU measures for oversight of sustainability and GHG reduction for renewable ener...

Nil

#### Q22. Do you agree with this approach in addressing the recommendations of the biofuel study?

Based on the information provided, establishing a working group and a voluntary vulnerability assessment appears to be a reasonable approach in addressing the recommendations of the biofuel study. Biofuel fraud risk is a grave concern, and it is essential to take steps to minimise this risk.

- A working group can bring together experts from different fields to collaborate and share their knowledge and expertise to develop effective strategies to mitigate biofuel fraud risk. Additionally, a voluntary vulnerability assessment can help identify potential vulnerabilities and provide recommendations for improvement.
- However, it is important to note that the success of this approach will depend on the willingness of stakeholders to participate voluntarily and the extent to which their recommendations are

implemented. Therefore, it may be necessary to incentivise participation in the vulnerability assessment and provide support for the implementation of recommendations.

• Overall, while this approach may not be a complete solution, it is a step in the right direction towards addressing the recommendations of the biofuel study and minimising the risk of biofuel fraud.

#### Q23. If so, what are your views concerning the scope of the assessment?

Regarding the scope of the vulnerability assessment, it would be essential to ensure that it is comprehensive and covers all relevant aspects of biofuel fraud risk. This would include assessing vulnerabilities in the production, distribution, and sale of biofuels, as well as any associated documentation, certifications, and verification processes.

- In addition, the assessment should consider the potential for fraud at different points in the biofuel supply chain, such as the sourcing and blending of feedstocks, transportation, storage, and trading.
- It would also be important to assess the effectiveness of existing measures and regulations aimed at preventing biofuel fraud and identify any gaps or weaknesses in these measures. This could help inform recommendations for strengthening existing measures or implementing new ones.
- Overall, a comprehensive assessment that considers all aspects of biofuel fraud risk would be necessary to develop effective strategies to mitigate this risk.

Q24. Do you agree with the proposed trajectory of decrease in high ILUC-risk biofuels supply to 2030, as set out in the policy statement?

Nil

Q25. Should this be reduced annually, or every 2 or 3 years?

Nil

Q26. Should the reduction to 0% be accelerated, e.g. by 2025 or earlier?

Nil

#### Q27. Observations sought:

Concerning the proposal for a working group to progress further examination and research, addressing the policy challenge of EU obligations and domestic targets:

Do you ag...

Nil

Q28. If so, what are your views concerning the scope of the examination and research needed?

Nil

Q29. In addition to the policy indicators, evidence and research identified in this policy statement, are there other evidence-based inputs which need to be considered in order to support future policy...

Yes, in addition to the policy indicators, evidence, and research identified in the policy statement, there may be other evidence-based inputs that need to be considered to support future policy development and implementation related to biofuels.

- For example, it may be useful to consider the latest scientific research on the environmental impact of biofuels, such as their impact on land use change, water use, and biodiversity. This can help ensure that biofuels are produced in a sustainable and environmentally friendly manner.
- Additionally, input from stakeholders, such as local communities, consumer groups, and environmental organisations, can provide valuable insights into the social and economic impacts of biofuels and help ensure that policy decisions consider the diverse perspectives of diverse groups.
- Furthermore, input from industry representatives, such as biofuel producers and distributors, can help ensure that policy decisions are practical and feasible from an operational and economic perspective.
- It is also important to consider the potential impact of emerging technologies, such as electric vehicles, on the future demand for biofuels and their role in reducing greenhouse gas emissions in the transportation sector.

Overall, a comprehensive and evidence-based approach to policy development and implementation related to biofuels would require consideration of a range of inputs, including scientific research, stakeholder perspectives, industry insights, and emerging technologies.

# RENEWABLE TRANSPORT

Fuel Policy Statement 2023-2025



www.dhl.com

April 2023



### Introduction

DHL is pleased to have the opportunity to respond to the public consultation on the Department of Transport's Draft Renewable Transport Fuel Policy Statement 2023 - 2025.

As one of the leading logistics and delivery companies in Ireland, we have committed ourselves to a sustainable future. Globally, DHL has plans to invest €7 billion in order to reduce our carbon emissions below 29 million tonnes by 2030, and we have the ambition to achieve net-zero by 2050. Renewable fuels for transport form both the core of DHL's vision, and are an integral part of the company's plans for the future - to ensure that we meet both our own targets, and that we play a central role in meeting the objectives set out by the Irish Government in the Climate Action Plan 2023.

DHL believes that biomethane, as a renewable transport fuel, has the ability to decarbonise sub-segments of the transport sector, while acting as a catalyst for the development of other renewable fuels. On that basis, it is vital that the Department of Transport delivers a National Biomethane Strategy, and that a Biomethane Working Group be established as a priority.

Across other EU countries, well-established policy and regulatory frameworks, coupled with Government support, have allowed for the growth of domestic biomethane industries, which have supported the economic development of other sectors of the economy - agriculture, for example. It must be noted that Ireland has one of the highest potentials per capita for biomethane production within the EU. A mature, developed domestic biomethane industry will therefore serve a clear purpose - ensuring that Irish-based companies have access to a fully renewable fuel.

Should you wish to discuss any aspect of the attached submission, please do not hesitate to contact us.

Yours sincerely,

Ciaran Foley Managing Director, DHL Supply Chain





# Biomethane as a Renewable Fuel for Transport





# Biomethane as a Renewable Fuel for Transport

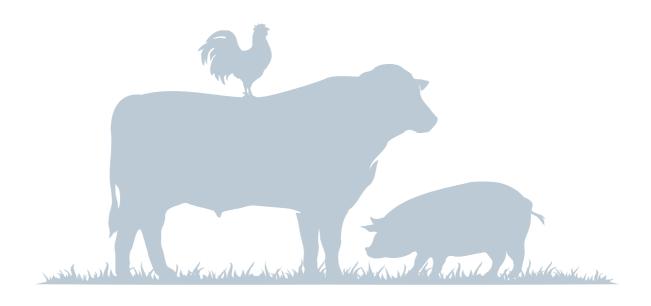
Transport is Ireland's second largest source of greenhouse gas emissions, at 18%. The 2022 Energy in Ireland report found that, last year, transport was responsible for 34% of total energy-related emissions in the country and in the context of demand, it remained the most carbon intensive sector with fuels produced from oil accounting for 95.5% of total energy demand. Electrification cannot single-handedly meet the legally binding target of 50% reduction in transport emissions by 2030, as set out in the Climate Action Plan 2023; and electrification is not the most efficient method of decarbonisation for every sector or vehicle.

As an example, electrification remains a significant challenge for segments of the transport sector, particularly in cases where last-mile delivery is not a factor - HGVs and buses. While HGVs and buses account for just 4% of vehicles on the road, they are responsible for 30% of all transport emissions. Supply chain demands, range anxiety, and the lack of available infrastructure means that electrification of HGVs is unlikely to become a fully viable option in advance of 2030. An alternative solution is therefore required, to enable the transport sector to meet its legally binding carbon emissions reduction targets in a timely manner. Biomethane is a carbon-neutral renewable gas which is readily available, with the associated gas infrastructure already in place. Biomethane produced in Ireland can instantly be injected into the gas grid and subsequently deployed for use, for refuelling purposes or otherwise. The availability of feedstocks from the food sector, including slurry and animal waste from agriculture, as well as domestic and commercial food waste, renders Ireland well placed to scale domestic biomethane production over time, and facilitate significant carbon abatement'. This can be done through capital supports aimed at developing a broad, diverse, anaerobic digestion industry to support biomethane production. This is a crucial aspect, that must be factored into broader discussions on renewable fuels for transport.





# Biomethane - Ireland's Agricultural Advantage



# Biomethane - Ireland's Agricultural Advantage

With our large agriculture sector, Ireland has one of the highest potentials per capita for biomethane production across the EU Member States. Yet, our Anaerobic Digestion (AD) industry has yet to mature, and AD plants are still in the early stage of development. This is despite many EU Member States, of similar population and capital expenditure rates, having extensively developed their own domestic AD industries – to include both farm-scale and food-based plants. This has been done through a combination of clear policy frameworks, coupled with Government support. In Denmark, biogas now contributes 36% of the total volume of gas that is used on the national grid. Germany has approximately 15,000 biomass power plants, and Italy is leading the charge on injecting biomethane into the national gas grid for use in the transport sector.

As part of its REPowerEU Plan to reduce the Member States' dependence on Russian fossil fuels, the European Commission aims to produce 35 billion cubic metres (bcm) of biomethane per year within the EU by 2030. This compares with an annual production of 3 bcm and 15 bcm of biogas today. In its Climate Action Plan (CAP) 2023, the Irish Government has set a target of 5.7 TWh of indigenously produced biomethane by 2030, based on the availability of agricultural feedstocks and food waste. The achievement of this target will necessitate the swift delivery of a National Biomethane Strategy, to establish a clear roadmap for the construction of up to 200 AD plants in advance of 2030. A mature, developed, domestic biomethane industry is one which consists of a system of farm-scale AD plants, alongside a network of food-waste AD plants, which aligns with the National Food Waste Prevention Roadmap. These plants can collectively produce biomethane for swift injection into the natural gas grid. Biomethane produced from food-waste ensures that food production neutral/positive impact on the environment, while supporting the broader sustainability ambitions of the agri-food industry. Food waste can thus act as a crucial anchor of the circular economy. In summary, though DHL welcomes the growing momentum for Ireland to embrace biomethane, we must equally recognise that its potential to contribute to transport decarbonisation as a renewable fuel, has yet to be fully acknowledged.





## DHL's Biomethane Project - Refuelling Renewable Transport



### DHL's Biomethane Project -Refuelling Renewable Transport

DHL, along with a number of other stakeholders, is in the process of making a significant investment into the construction of a biomethane production site in Cork - out of which biomethane will be transported via the national gas grid to a planned refuelling facility in North County Dublin. Once completed, the biomethane production plant will be one of the largest in Ireland. In this vein, the company is actively engaging with the Government, alongside relevant State Agencies and regulators, to ensure that the project vision can be executed without delay. DHL expects that, subject to connecting to the national gas grid and securing the relevant license from the applicable regulator, the refueling facility in North County Dublin will be complete by Q3/Q4 of 2023. This facility will have the capacity to refuel 50 DHL trucks with renewable biomethane gas, enabling significant carbon abatement from day one. Unlike other sources of fuel that are impacted by external factors (such as inflationary pressures and infrastructural capacity issues) biomethane will ensure consistent security of supply. By 2025, DHL's investment in the biomethane production plant will generate enough fuel for 150 vehicles which will service the grocery retail sector. Cumulatively, the project will result in a carbon abatement of approximately 15,000 tonnes per annum. Most crucially, the project will serve as an instrument of the Circular Economy through facilitating biomethane production through food waste.







# Powering Biomethane Production



### **Powering Biomethane Production**

The 2021 Policy Statement on Renewable Fuels for Transport noted the Department of Transport's commitment to developing "a new investment framework for the growth of sustainable forms gas as a transport fuel in the transport sector". However, neither the Climate Action Plan 2023 nor its Annex of Actions recently published by the Irish Government, contain planned actions for the use of biomethane in transport. Biomethane's potential in the short to medium term depends heavily on both public and legislative support. The Legislature must move rapidly to bridge the funding gap and introduce adequate support schemes, so as to drive sustained private investment in biomethane across Ireland. In order to stimulate domestic biomethane production and make biomethane available for use in transport, DHL calls on the Department to introduce a biofuels policy, which is transparent and offers reassurance to potential investors.

DHL additionally notes the need for a concerted shift in focus with regards to the existing provisions under the Biofuels Obligation Scheme. Current provisions dictate that suppliers must meet obligations pertaining both to the percentage blend of biofuels and GHG reduction. While Irish-based fuel suppliers met the 14% blend target in 2022, the accompanying GHG target of 7% was missed, and no penalties applied. Placing increased focus on GHG emissions reduction would thus allow the total environmental impact of fully sustainable fuels, such as biomethane, to be realised. Allowing for the recognition of optimally performing fuels would also act as a further incentive for investment in renewable fuels.





### Conclusion

The updated policy framework, as per the Renewable Transport Fuel Policy Statement 2023 - 2025 must allow for the provision of adequate schemes, which provide reassurance to project developers, and help to drive sustained investment in biomethane across Ireland. It is clear that Ireland now needs a dedicated biofuels policy which is transparent, and offers a defined regulatory framework - for both producers and consumers alike. This is necessary for the development of Ireland's domestic biomethane industry.

The advantages of biomethane as a renewable fuel for transport are clearly defined - it is a flexible, cost-effective, renewable source of energy that requires minimal infrastructure upgrades to rollout in Ireland. Facilitating indigenous, domestic biomethane production will stimulate sustained private sector investment and provide a network of secure jobs for skilled workers.

Ireland's considerable supply of agricultural waste, our well-established and mature energy infrastructure, coupled with our favourable climate, means that we have the capacity to leverage domestic biomethane production in order to decarbonise the transport sector. It is therefore imperative that the Renewable Transport Fuel Policy Statement 2023 - 2025 recognises and acknowledges this.





# RENEWABLE TRANSPORT

Fuel Policy Statement 2023-2025



www.dhl.com

April 2023



Draft Renewable Transport Fuel Policy Consultation Climate Adaptation, Research and Energy Division Department of Transport Leeson Lane Dublin 2 D02 TR60

Via email: climateadaptationresearch&energydivision@transport.gov.ie

27 April 2022

#### Re: Valero Response to the Draft Renewable Transport Fuel Policy 2023-2025 Consultation

Dear Sirs,

Valero welcomes the opportunity to provide our views for consideration as part of the Department of Transport's consultation on the draft renewable transport fuel policy for the period 2023-2025. Valero markets fuel in the Republic of Ireland under the Texaco brand, with around 150 Texaco-branded service stations in Ireland. We are joint owners and Operator of the Joint Fuels Terminal in Dublin, and our supply system is integrated into Valero's European operations including Pembroke Refinery in the UK, which is one of Europe's largest and most complex refineries. We are also significant suppliers of aviation fuels.

As a subsidiary of Valero Energy Corporation – a Fortune 50 company based in San Antonio, Texas – Valero's European business is part of a network of 15 petroleum refineries owned and operated by the company, with a combined throughput capacity of approximately 3.2 million barrels per day, making Valero the world's largest independent refiner.

Valero is also North America's largest renewable transportation fuels producer. For well over a decade, we have consistently invested significant capital in the production of low-carbon liquid fuels (LCLFs). As the world's second largest ethanol producer, we own and operate 13 ethanol plants with 6.4 billion litres per year of production capacity. Additionally, Diamond Green Diesel (DGD) is a joint venture between Valero Energy Corporation and Darling Ingredients Inc. DGD is the largest renewable diesel (also known as Hydrotreated Vegetable Oil or HVO) producer in North America and the second-largest in the world.<sup>1</sup>

In 2021 we completed an expansion of our existing HVO plant in Louisiana, increasing capacity to 2.6 billion litres per year. Another plant under construction in Texas was completed in 2022, bringing our total capacity to 4.5 billion litres per year. HVO can lead to an 80%+ reduction in carbon emissions compared to regular fossil fuels, and it can be "dropped in" to existing vehicle and refuelling infrastructure without the need for any modifications.

Valero's commitment to the environment is a core component of our operations philosophy, and our investments reflect this belief, as we look to contribute to GHG reduction. This includes our comprehensive roadmap to reduce our own emissions, with a target to reduce and offset global refining Scope 1 and 2 GHG emissions by 63% by 2025 through investments in board approved projects. We also have a plan to further reduce and offset 100% of those emissions by 2035 through board-approved projects and carbon capture and storage projects under development.<sup>2</sup>

The following paper (Annex I) contains our company's response to the consultation, which details our belief that biofuels have an important role to play now and for the long-term in supporting Ireland's transport decarbonisation efforts. As the Department of Transport looks across a number of policy proposals to utilise the Renewable Transport Fuel

<sup>1</sup> https://www.diamondgreendiesel.com/about-us

<sup>&</sup>lt;sup>2</sup> Valero Energy Corporation, Stewardship and Responsibility Report, <a href="https://s23.q4cdn.com/587626645/files/doc\_downloads/esg\_reports/2020/2020-SRR Web-Version\_Spreads-7-22.pdf">https://s23.q4cdn.com/587626645/files/doc\_downloads/esg\_reports/2020/2020-SRR Web-Version\_Spreads-7-22.pdf</a>, July 2021



Valero Energy (Ireland) Limited

1st Floor, Block B Liffey Valley Office Campus Quarryvale Dublin 22 D22 X0Y3 Ireland

Tel: +353 (0)1 6258200

Obligation (RTFO) to better achieve Ireland's ambitious GHG emission reduction targets – such as including new sectors, such as rail or Non-Road Mobile Machinery (NRMM) in the scope of the scheme, or looking at ways to incentivise advanced biofuels – Valero believes it is essential that Ireland adheres to a technology neutral approach. Adopting policies that are predisposed towards particular powertrains only serves to make Ireland's transport decarbonisation efforts reliant on a narrower base of technologies with the attendant risk of concentrating all the State's resources in one or a few, potentially high-cost areas. Such an approach fails to recognise the opportunities for widespread decarbonisation from liquid fuels.

Once again, Valero is grateful for the opportunity to share our views on these important issues, and we would be delighted to provide any further details should they be required.

Yours faithfully,



James Twohig
Director Ireland Operations



#### Annex I: Valero Energy (Ireland) Limited response to the draft renewable transport fuel policy 2023-2025 consultation

- 1) Name
- 1.1. James Twohig, Director Ireland Operations
- 2) Organisation (if applicable)
- 2.1. Valero Energy (Ireland) Limited

#### Section 1: Review of the RTFO Scope

#### Rail transport

A review to include rail transport within the scope of the RTFO by 2025 is proposed:

- 3) What do you think are the key considerations to be considered within this review?
- 3.1. Valero agrees that the inclusion of rail transport within the scope of the RTFO by 2025 is a logical development. As a captive fleet transport mode, with a relatively long lifetime for rolling stock, it is a perfectly common-sense approach to expand the use of renewable transport fuels to rail transport, making their use eligible for RTFO certificates.
- 3.2. This is particularly the case considering the main decarbonisation alternative electrification requires substantial infrastructure capital costs. Indeed, calculations on the carbon intensity of electrification needs to account for the embedded carbon costs of any associated infrastructure build-out, as well as in-use emissions.
- 3.3. An all-technology type approach should be a key consideration as the Department undertakes its review. Renewable transport fuels, including conversion to the use of RFNBOs and green hydrogen, should be included in the scope of future planning.
- 3.4. Valero especially considers the use of Hydrotreated Vegetable Oil (HVO) as a principal route to all transport decarbonisation pathways, including rail transport. HVO has a critical part to play in supporting transport decarbonisation. A fossil-free, drop-in replacement to diesel, HVO is made from 100% renewable or waste products and can reduce emissions by up to 90%, with a recognised fuel standard (EN15940), excellent storability and cold weather properties. It also provides immediate GHG emissions reductions and in use can reduce NOx tailpipe emissions when compared to regular biodiesel.
- 3.5. We believe it is critical, in order to support Irish consumers gain access to decarbonisation pathways that are essential to meeting emissions reductions targets in transport, that barriers to global market sources of HVO are removed. It is disappointing, therefore, that the EU announced in August 2021 that it will retain anti-dumping and anti-subsidy tariffs on US biodiesel – including HVO – for a further five-year period.<sup>3</sup> We would urge the Government to work closely with the European Commission and other Member States to revisit this decision promptly at the next review opportunity. Giving Irish end-users competitive access to HVO sources from reliable jurisdictions, such as the US, would do much to improve the pricing environment for this essential product, as well as improve the energy security context facing Ireland.

2 August 2021



#### 4) Do you agree or disagree with the proposed review timeline, and reasons why?

- 4.1. Valero agrees with the timeline for the proposed review by 2025. The introduction of renewable transport fuels to rail transport, especially those such as HVO with drop-in qualities. Indeed, Valero believes the inclusion of rail transport within the RTFO on that basis could even be achieved earlier. It would be entirely achievable, in our view, subject to a timely review process, to include rail transport from 2024 onwards.
- 4.2. Valero is, as ever, willing to meet with the Department to discuss this review and assist officials in understanding how best to achieve a timely introduction on this timeline.

#### Renewable electricity - in road and rail transport

Following consultation and review, it is intended that electricity used for transport would not be included in the RTFO:

- 5) Do you agree that existing supports for cross-sector renewable electricity supply are sufficient to incentivise renewable electricity in transport consumption?
- 5.1. Considering the challenges identified in the consultation document, Valero agrees that renewable electricity should not be included within the RTFO. We also believe that - in light of the Government's ambitions for electrification as a decarbonisation pathway across other sectors in the State – that ambitions to incentivise electrification of the road and rail vehicle fleet should not create scenarios where demand for renewable electricity outstrips supply.
- 5.2. It would be a perverse outcome, for example, if additionality and indirect land use change (ILUC) impacts were generated from greater use of high carbon intensity fuels (such as coal or peat) in order to meet electricity demand across multiple sectors. This could undermine grid level decarbonisation, by keeping higher polluting fossil fuels in the energy mix for longer, including through use of domestic fossil fuels or imports via the East West Interconnector (EWIC). Additionally, as noted above (in paragraph 3.2), calculations on the carbon intensity of electrification needs to account for the embedded carbon costs of any associated infrastructure build-out, as well as in-use emissions.
- 5.3. Decarbonisation of the road fleet in particular needs to be accepted by consumers, and meet their primary transport needs. The well-documented challenges associated with the roll-out of Battery Electric Vehicles<sup>4</sup> underline the urgent need for the Government to provide a real-world alternative to electrification of the road vehicle fleet. This alternative can be provided through greater use of drop-in renewable transport fuels via the RTFO.
- 6) If you agree, do you think that there is merit in reviewing this position again in 2025 or a later date?
- 6.1. If Ireland is to enjoy the maximum benefits from the RTFO scheme, it will require significant investments from the private sector. Investments in renewable transport fuels require long-term certainty and predictability. If

4 "The EV rollout will likely be bumpier for several reasons. We believe the rapid growth projected for EVs will generate significant bottlenecks and inflationary pressures, increase scrutiny of the environmental costs of mining and manufacturing EV batteries... and ultimately impede the pace of EV expansion. However, even if the EV transition is smooth, global ICEVs new car sales are unlikely to decline on a gross units-sold basis before 2026, based on our [estimates].... First, the EV price structure is generally uncompetitive (too expensive for the majority of new car buyers but also unprofitable for auto manufacturers). Second, range and re-charging limitations should persist at least until a solid-state battery is commercially available (a post-2025 event at least). Third, there is the likelihood of disruptive inflationary pressures and supply bottlenecks common to any rapid industrial expansion. Fourth, there could be underappreciated and unforeseen environmental costs and impacts (reserves concentration, massive mining expansions required for metals and rare earths minerals). Fifth, reliance on carbon-intensive electric power supplies (majority of batteries and components produced in Asia which relies heavily on coal-fired power) could offset the clearly advantaged "tailpipe" or "last mile" emission footprint of EVs." Roger D. Read and Lauren

Hendrix, Wells Fargo Securities, Oil Macro: So How about That EV Expansion, 25 January 2021

Directors: A. Shackleton (UK), J. Twohig, S. Reddin Reg. Office: 1st Floor, Block B, Liffey Valley Office Campus, Quarryvale, Dublin 22, D22 X0Y3 Reg No.: 7246 Ireland



developers are faced with the risk of fundamental changes to both the transport market sector and the schemes operating within them, this will inevitably undermine investor confidence and jeopardise the ability of the State to attract the most effective renewable transport fuels for use by consumers. The Department needs to be incredibly mindful, therefore, that early reviews (within only a few years of operation) do not lead to a diminution of investor certainty.

- 7) Do you think that models such as in the Netherlands should be explored further for the benefits for electrification of transport?
- 7.1. Valero disagrees with the suggested model, as in place in the Netherlands, to enable RTFO certificates to be traded between large-scale EV infrastructure developers and RTFO fuel suppliers. As noted in the consultation document, the consequence of such an approach would lead to a displacement of biofuel blending activity. Such an outcome would lead to immediate disbenefits being applied to Ireland's transport decarbonisation ambitions.
- 7.2. Additionally, such a model would require the fuel supply sector to effectively cross-subsidise EV infrastructure development. It would also inevitably succeed in linking such a subsidy to the relative price of fossil fuels and biofuels (i.e. the blended ticket price). This creates a substantial amount of investor risk and could undermine the biofuel sector: it will become more difficult to invest in biofuel production.
- 7.3. Such subsidy, as underpinned by the State through RTFO credit trading, would have to be long-term and substantial in order to successfully create sufficient EV charging infrastructure. Such a durable and costly commitment from the Government would effectively limit Ireland's flexibility in achieving transport decarbonisation, whilst undermining the renewable fuel sector's ability to contribute to immediate and effective emissions savings across the State.
- 7.4. Rather than considering such a Netherlands-type model, Valero believes it would be preferable to consider capital funding for EV infrastructure development via general taxation. Such an approach would be equitable, more accountable to consumers across the State and prevent potential negative repercussions of impacting on biofuel usage.

#### **Aviation and maritime fuels**

- 8) What incentives would you like to see for supply of renewable transport fuels in aviation and maritime fuels?
- 8.1. The majority aviation and maritime emissions are, by their very nature, global. Domestic policy, therefore, should always be geared towards maximum compatibility with internationally agreed schemes, such as those operated and designed by CORSIA and the EU Emissions Trading Scheme (EU ETS) for aviation and the IMO for shipping. Ireland-only measures will only lead to negative repercussions, including demand destruction for Irish aviation and maritime fuel suppliers as airlines undertake 'tankering' in aviation and shipping companies indulge in similar negative practices to avoid higher costs in the State. This will also lead to the perverse outcome of higher emissions from flights and shipping movements to and from Ireland.
- 8.2. Full alignment with the incentives in place across the EU and globally is therefore imperative to avoid undermining Irish consumers. Any domestic incentives under the RTFO that do not align with such European and international efforts risk creating scenarios where flights and sea journeys to Ireland become comparatively more expensive, thus encouraging consumers to either travel by air to alternative long-haul destinations, perversely encouraging the use of more aviation fuel than would otherwise have been the case, or adding

Directors: A. Shackleton (UK), J. Twohig, S. Reddin Reg. Office: 1st Floor, Block B, Liffey Valley Office Campus, Quarryvale, Dublin 22, D22 X0Y3 Reg No.: 7246 Ireland



excessive costs to Irish ship movements, thus undermining the overall intent of the Government's policy approach.

- 8.3. Such impacts will go far beyond those sectors of the economy most visibly connected to the aviation and maritime sector, such as airlines, airport and port operators, but also tourism and hospitality providers, as well as having negative consequences for Ireland's downstream oil sector.
- 8.4. Alongside the effect of making the Irish aviation and maritime sectors increasingly uneconomic compared to regional and international competitors, the Government also needs to recognise that Ireland does not have the domestically-sourced wastes needed to support domestic SAF production programme. Measures must be avoided if they lead to a competition for wastes between other sectors, and any SAF mandate must carefully avoid any damage to the RTFO.
- 8.5. One essential element that needs to be considered, in order to incentivise the supply of renewable transport fuels in the aviation and maritime sectors, is a consistent approach towards allowing interaction between the RTFO or any other domestic scheme with international subsidy schemes. This already occurs in both the US and is proposed for the EU, and it is vital that Ireland supports European efforts to to allow participants to interact between various initiatives and programmes.
- 9) What do you see as the key challenges or enablers to incentivise the supply of renewable transport fuels in aviation and maritime sectors?
- 9.1. See our response to Q8.

#### **Non-Road Mobile Machinery**

- 10) Do you agree with the inclusion of non-road mobile machinery (NRMM) within the RTFO?
- Valero agrees with the proposal to include non-road mobile machinery (NRMM) within the RTFO. Hard-toabate sectors that make use of NRMM will – absent an unexpected technology development – be dependent on liquid fuels on a long-term basis. These powertrains should, nonetheless, contribute to GHG emissions reduction; inclusion within the RTFO would as a result appear appropriate.
- The fundamental challenge as noted in the consultation document, however, will stem from the balance of economic impacts versus environmental performance from including NRMM within the scope of the RTFO. With gas oil having multiple potential end-uses across various sectors of the economy, the cost impact of including NRMM within the RTFO could have negative impacts. It is important, however, the RTFO is not subject to the introduction of unnecessary complexity.
- An appropriate solution, therefore, would be for the Department to insist that al volumes of gas oil sales are obligated under the RTFO, with a review prior to implementation of each individual sector to determine whether any industry-specific subsidy or offset should be separately implemented in order to avoid economic considerations. This approach would ensure NRMM decarbonisation pathways within the RTFO are maximised, renewable transport fuels are given a full opportunity to contribute to GHG reductions across hard-to-abate sectors, yet potential negative socio-economic consequences are avoided for particular sectors.
- 11) If this were introduced as a reduced RTFO rate initially what contribution would be appropriate 75%, 50%. 25% of other?



- 11.1. As outlined in our response to Q10 (see paragraphs 10.2. and 10.3.), Valero does not believe NRMM should be subject to a reduced rate within the RTFO. For the intent of the policy, the inclusion rate of NRMM within the RTFO should be 100% across all gas oil-use sectors. Separate measures to recompense certain sectors, i.e. agriculture, should be assessed by the Government and introduced alongside the inclusion of NRMM as part of the RTFO.
- 11.2. Alongside these separate potential support mechanisms for particular sectors, however, the Department must commit to clear communication with end-users that use of renewable transport fuels in plant machinery is a desirable pathway to NRMM decarbonisation efforts. Oftentimes, debates around the use of biofuels can be subject to misinformation. The Government should articulate the benefits of renewable biofuels, such as Hydrotreated Vegetable Oil (HVO), which can be dropped-in to existing powertrains with few if any modifications.

#### 12) In your view, what should be the key consideration for this policy proposal?

- 12.1. A principal consideration for including NRMM machinery within the RTFO is an overall acceptance that all sectors reliant upon hard-to-abate powertrains will require liquid fuels for the long-term. Battery Electric Vehicle (BEV) or Fuel Cell Electric Vehicle (FCEV) replacement technologies are not feasible alternatives in the short-, medium- or long-term and there are substantial capital and environmental costs to scrapping plant equipment before the end of their operational lifespan.
- 12.2. Additionally, the Department should work to identify the hurdles preventing the introduction a single B7 gas oil grade across the State, and look to overcome them. In other jurisdictions, including in the UK, companies have implemented a single B7 gas oil grade with no noticeable technical or product quality issues. Such a measure in Ireland could similarly benefit NRMM if it is included within the RTFO as proposed.

### 13) What is the appropriate balance of impacts including social, economic, and environmental considerations?

- 13.1. See our responses above to Q10 (specifically paragraphs 10.2 and 10.3.) and Q11 (specifically paragraph 11.2.).
- 13.2. As the Government looks for ways to better balance the cost implications for end-users, however, Valero also strongly recommends pursuing efforts to increase the ability for Irish consumers to access renewable transport fuels from as widely sourced production locations as possible, in order to boost competition that can support the transition to climate neutrality. This is particularly the case for HVO, which as noted above (see paragraph 3.4.) has superior qualities compared to both conventional diesel and traditional biodiesel (FAME) in terms of its benefits to urban air quality, climate change and vehicle efficiency
- 13.3. As noted above (see paragraph 3.5.), it is disappointing, therefore, that the EU announced in August 2021 that it will retain anti-dumping and anti-subsidy tariffs on US biodiesel including HVO for a further five-year period. We would urge the Government to work closely with the European Commission and other Member States to revisit this decision promptly at the next review opportunity. Giving Irish end-users competitive access to HVO sources from reliable jurisdictions, such as the US, would do much to improve the pricing environment for this essential product, as well as improve the energy security context facing Ireland.

Section 2: RTFO rate, targets, and limits



#### The RTFO rate

- 14) Given the proposed trajectory of increase in the RTFO to meet ambitious biofuel blending targets in the climate action plan, what steps can be taken within this policy to avoid future biofuel lock-in?
- 14.1. Valero considers the Department's concerns around future biofuel "lock-in" to be entirely misplaced, and fundamentally fails to appreciate that liquid biofuels have a long-term part to play in Ireland's future energy mix. To ensure Ireland successfully achieves climate neutrality by 2050, it is vital that the Government adopts a technology neutral approach, assessing various transport powertrain emissions on an objective lifecycle basis.
- 14.2. Inhibiting consumer choice by failing to adopt a technology neutral approach only serves to make Ireland's transport decarbonisation efforts reliant on a narrower base of technologies with the attendant risk of concentrating all the State's resources in one or a few, potentially high-cost areas. Such an approach fails to recognise the opportunities for widespread decarbonisation from liquid fuels.
- 14.3. This approach is already having negative consequences for efforts that could otherwise provide immediate greenhouse gas reductions from the existing light vehicle fleet. By prioritising the electrification of vehicle powertrains, the Government has disincentivised corresponding efforts to meet decarbonisation of road transport by other means. As highlighted by the Institution of Mechanical Engineers (IMechE), "[as] a consequence... research into improving the efficiency and emissions reductions of internal combustion engines (ICEs), their fuels and their associated mechanical systems, has reduced."5
- When assessed on a life cycle basis<sup>6</sup>, a combination of vehicle related opportunities and low-carbon fuels 14.4. offer a positive alternative route to light vehicle transport decarbonisation in Ireland. As addressed by Concawe, the technical body representing the European refining sector, the use of "liquid fuels with an optimised carbon intensity in the most efficient ICE and Hybrid passenger car vehicles could offer a potential complementary alternative to full electrification in this sector."
- 14.5. Pathways to reducing the well-to-wheels (WTW) CO<sub>2</sub> intensity of liquid fuels can include vehicle efficiency management, improving upstream crude oil extraction and downstream refining efficiency, effective deployment of sustainable and low-carbon biofuels and synthetic fuels, improving the performance of petroleum-based fuels and other GHG mitigation technologies currently in development.
- 14.6. Instead of disincentivising the use and development of low-carbon liquid fuels by raising unfounded concerns about biofuel "lock-in", the Government should instead support efforts to encourage the development of low-carbon liquid fuels that - unlike alternative powertrains such as electrification or hydrogen - do not require the development of significant, costly infrastructure (both in terms of vehicle technology and electric charging networks or new refuelling infrastructure).
- Liquid fuels have an unrivalled energy density compared to other technologies. Achieving a reduction in 14.7. their carbon intensity - via the pathways outlined above - will allow for the continued advantages of liquid

<sup>5</sup> Institution of Mechanical Engineers (IMechE), Accelerating Road Transport Decarbonisation: A Complementary Approach using Sustainable and Low Carbon Fuels, [https://www.imeche.org/docs/default-source/1-oscar/reports-policy-statements-and-documents/imeche-decarbonisation-report-final.pdf?sfvrsn=2], January 2020, p.5

Directors: A. Shackleton (UK), J. Twohig, S. Reddin Reg. Office: 1st Floor, Block B, Liffey Valley Office Campus, Quarryvale, Dublin 22, D22 X0Y3

<sup>&</sup>quot;Life cycle analysis is a technique for quantifying the environmental and human health impacts of a product over its lifespan and is often referred to as 'cradle-to-grave analysis', 'eco-balance' or 'environmental foot-printing'. When applied in the automotive field, it can yield some interesting results.... While pure electric vehicles offer a significant reduction in life cycle GHG emissions, they are far from zero emissions. This is driven primarily by the embedded emissions in the production of the vehicle (mainly the battery pack), and the type of generation used to make the power to charge the vehicle, neither of which is measured at point of use.... [Vehicles] that can yield the lowest in lifetime CO₂ are those powered by a low-carbon fuel. Such conventional vehicles also benefit from relatively low emissions associated with manufacturing an internal combustion engine vehicle and its end-of-life disposal." Ibid., pp.8-9

Concawe, The Low Carbon Pathways Project: A holistic framework to explore the role of liquid fuels in future EU low-emission mobility (2050), [https://www.concawe.eu/wp-content/uploads/2018/04/Working-plan Low-Carbon-Pathways.pdf], April 2018, p.8



fuels to be utilised across the transport system, with no new distribution or storage infrastructure needed, reducing the need for electric fast charging facilities. Existing policies to reduce emissions from liquid fuels, most notably the RTFO, provide a well understood and accepted mechanism for transport fuel decarbonisation, and indications that the Government might in future take steps to pivot away from biofuels perversely undermine the efforts to achieve transport decarbonisation in the near term.

- 14.8. Rather than anticipating unfounded concerns about biofuel "lock-in", the Government should instead embrace technology neutrality assessed on a lifecycle basis, allowing different vehicle and fuel technologies to compete on a level playing field as part of a complementary strategy of reducing emissions to achieve Ireland's decarbonisation goals.
- 14.9. Tentatively, this approach seems to have been acknowledged at the European level, with the Commission's recent decision to exempt internal combustion engine (ICE) vehicles that run on e-fuels from the EU's planned 20235 phaseout of such vehicles. Valero encourages the Government to support this approach, and support efforts to put Ireland at the forefront of those efforts to explore the positive benefits of biofuels as a transport decarbonisation pathway.
- 15) What safeguards and mitigation could be included, within this policy or related Government policy, against possible socio-economic and distributional impacts, to ensure just transition?
- 15.1. The RTFO programme has successfully delivered significant GHG emissions reductions from road transport in the State, with policy design that has maximised emissions savings and encouraged the uptake of biofuels while minimising buy-outs. The RTFO is, therefore, best practice when it comes transport decarbonisation and should be built upon, not undermined in any way, to form the heart of the Government's efforts to decarbonise transport.
- 15.2. Government action should therefore include ensuring that any increases in the RTFO obligation are done in an achievable manner and based on sound science, with targets reviews carried out periodically to ensure the policy retains value without undermining investor confidence. The principal measure the Department can deploy to safeguard possible socio-economic and distributional impacts, therefore, is regular monitoring of the rate of buy-out, and a commitment either to halt increases in the RTFO obligation rate or reduce the buy-out if it occurs excessively. Buy-out should be considered policy failure, and Ministers must be prepared to act to prevent it.

#### E10 mandate

To ensure achievement of the climate action plan target of E10 by 2025, it is proposed to keep under review the supply of ethanol, with a view to possible increase in the minimum percentage ethanol in petrol by regulation in 2025:

- 16) Do you agree or disagree with this approach? And why?
- 16.1. Valero moved to full E10 blending of ethanol into petrol from the beginning of April 2023. We nonetheless disagree with the proposal to review the E10 mandate with a view to increase the minimum percentage ethanol in petrol by regulation by 2025. The current 5.5% minimum percentage ethanol in petrol ensures consistency across the island of Ireland, and most importantly gives fuel suppliers the flexibility necessary to meet their obligations. An increase in the minimum percentage would undermine the market's ability to best meet that demand and lead to potential negative unintended consequences, should the physical supply

8 Kate Abnett, EU-German deal to map path for e-fuel cars after 2035, Reuters, https://www.reuters.com/business/autos-transportation/eu-german-deal-maps-legal-path-e-fuel-cars-after-2035-document-2023-03-27/, 27 March 2023



of ethanol become challenged. Ultimately, the concept of buy-out is an important cost protection for consumers.

16.2. The Department should be incredibly mindful that with a domestic production capacity of only 12 million litres<sup>9</sup> of ethanol in the State, Ireland is dependent on the use of imported ethanol. Any excessive increase in the percentage of ethanol required in petrol would obviously increase that dependency.

#### Advanced biofuel obligation

- 17) Do you agree with the proposal for a higher national advanced biofuel obligation rate, beyond EU requirements?
- 17.1. Valero does not agree with the proposal for a higher national advanced biofuel obligation rate, beyond EU requirements. Adopting an obligation in excess of and inconsistent with the EU would create cost burdens on Irish consumers, creating potential negative socio-economic impacts across the State. We are unclear as to why the advanced biofuel obligation could need to be set at a higher than the EU requirement or why Irish consumers may face higher than average EU penalty prices where the biofuel mandate cannot be achieved.
- 17.2. Maintaining consistency with the Renewable Energy Directive offers Ireland the best opportunity to take advantage of a developing market for advanced biofuels, and not risk jeopardising access to nascent available production and supply.
- 18) What should the Department consider in setting the advanced biofuel obligation rate, including social, economic, and environmental impacts?
- 18.1. With changes proposed already to the EU Annex IX (both A and B feedstocks lists), what is adopted and indeed future changes to these categories may impact the ability of Ireland and other Member States from meeting the advanced biofuel obligation rate. Flexibility is therefore important in order to prevent potential widespread enforced buy-out by obligated parties.
- 18.2. Valero acknowledges the point raised by Dr James Glynn of University College Cork (UCC), who in November 2020, when giving evidence to the Oireachtas Joint Committee on Climate Action, stated that one of the key points in research to support his evidence that we must "[a]cknowledge the role of early dialogue and societal buy in. Behaviour change and demand reduction will be required. The national objective is unlikely to be met by technological means alone." 10
- 18.3. The Department needs to recognise that the impacts of these policies on Irish consumers will be considerable and potentially detrimental to standards of living. Clear communication from Government is needed in order for society to understand and accept the effects that these highly ambitious policies will have, unless they leverage the <u>full</u> range of available technological solutions that can be provided by the renewable fuel sector.

#### Renewable Fuels of Non-Biological Origin (RFNBO)

<sup>9</sup> Byrne Ó'Cléirigh Engineers Consultant, A Review of Requirements and Constraints on Biofuels in Ireland Arising from RED II and National Targets, November 2022, p.10

p.10

10 University College Cork, Energy Policy and Modelling Group advise on Climate Action and Low Carbon Development Bill, <a href="https://www.ucc.ie/en/eri/news/energy-policy-and-modelling-group-advise-on-climate-action-and-low-carbon-development-bill-.html">https://www.ucc.ie/en/eri/news/energy-policy-and-modelling-group-advise-on-climate-action-and-low-carbon-development-bill-.html</a>, 2 November 2020



- 19) What should be the key considerations social, economic, and environmental, in establishing in 2025 a sub-target for renewable fuels of non-biological origin (RFNBO) and associated buy-out?
- 19.1. The key consideration for the Department to bear in mind for the establishment of a 2025 RFNBO subtarget must be the availability and priority of use for renewable electricity across a range of end-uses, including decarbonising existing grid demand. It is sensible for the Government to commit to carrying out further research and consultation on the projected availability of RFNBOs for the 2025-2030 period, and Valero supports such an investigation into the likely obtainability in future periods, but also strongly encourages the Government to maintain strong alignment with other EU Member States and RED II.
- 19.2. A further consideration also relates to having a full understanding of the efficiencies of deploying 'green' hydrogen for RFNBO production versus other decarbonisation uses across the Irish economy. In spite of the many measures already in place to manage the effective deployment of renewable resources, there are still potential environmental impacts should the prioritisation of renewable electricity be misdirected between regular grid use compared to transport.

#### Additional certificates to incentivise certain RTF supply

- 20) What considerations should be included in this review including possible social, economic, and environmental impacts?
- Valero is concerned that the proposed review risks undermining the previous consultation on the use of 20.1. additional certificates to incentivise certain RTF supply. Valero was disappointed at the recent actions of the Department in changing multipliers for HVO, tallow and biomethane at the last minute. The Minister now has been given powers to make future changes, which further adds to industry's uncertainty; this is exacerbated by this proposed review.
- 20.2. By declaring that regulations can be reviewed and adjusted over time, the Government introduces a high degree of uncertainty in existing policy that has already received stakeholder input. Valero would instead strongly urge Government to adhere as much as possible to announced and settled policy before accepting adjustments; any future changes should also only be considered after a substantial and considered consultation with stakeholders.
- 20.3. Should this review occur, however, it is unclear to Valero whether this only applies to specified fuels, but not the various end-use sectors where those fuels are consumed. It would be illogical, in view of the interplays between RTF fuel production and use, not to consider all of these aspects and solely focus on just one element.

#### Section 3: Supporting compliance

#### EU greenhouse gas intensity reduction target

- 21) Would overall compliance be better achieved if the renewable transport fuel obligation were solely based upon a greenhouse gas intensity reduction rather than the current renewable energy obligation?
- 21.1. Whilst Valero acknowledges there is a logic in targeting the desired outcome of GHG emissions reduction directly with policy, the Government should recognise that such an approach to a GHG intensity mandate would amount to a fundamental change in Ireland's transport decarbonisation trajectory. This would create

Directors: A. Shackleton (UK), J. Twohig, S. Reddin Reg. Office: 1st Floor, Block B, Liffey Valley Office Campus, Quarryvale, Dublin 22, D22 X0Y3

Reg No.: 7246 Ireland



a period of investor uncertainty and may impede the decarbonisation pathway that the State has already committed to.

- 22) Would you agree with the introduction of a greenhouse gas intensity reduction basis for the 2025 obligation period?
- 22.1. Valero considers that such an extensive change would require a substantial amount of research, as well as comprehensive stakeholder engagement and input, that a 2025 starting point for the obligation period is perhaps overly ambitions. We recommend that the Government, should it choose to adopt this approach, give maximum flexibility and a sufficient transition period to ensure any potential negative repercussions and understood and mitigated.

#### Sustainability and GHG criteria compliance - EU database and supervisions of CBS

- 23) From your perspective, where does the focus need to be over the next two years concerning the implementation of the EU measures for oversight of sustainability and GHG reduction for renewable energy in transport?
- 23.1. Valero considers that the principal focus in implementing EU measures for oversight of sustainability and GHG reduction should centre upon enhancing and further developing the existing voluntary schemes. As we understand, the EU database may simply place an additional administrative burden upon market participants.

#### Safeguarding against risk of fraud and other indirect effects

Concerning the proposal to establish a working group and a voluntary vulnerability assessment concerning biofuel fraud risk:

- 24) Do you agree with this approach in addressing the recommendations of the biofuel study?
- 24.1. As noted in our response to Q23, we believe that the Department should work directly with the voluntary bodies to address the concerns highlighted by the Climate Change Advisory Council.
- 25) If so, what are your views concerning the scope of the assessment?
- 25.1. See our response to Q24.

#### **High ILUC-risk**

- 26) Do you agree with the proposed trajectory of decrease in high ILUC-risk biofuels supply to 2030, as set out in the policy statement?
- 26.1. It is important to note that biofuels considered to be high ILUC-risk may change in the period between now and 2030. Acknowledging the fluctuating nature of high ILUC-risk must, therefore, be understood by the Department when considering the overall trajectory. Palm oil, widely recognised as being high ILUC-risk, no longer factors in the fuel feedstock mix. In part, because of the focus on waste feedstocks, palm oil has not materially contributed to Irish transport fuel decarbonisation for many years.
- 27) Should this be reduced annually, or every 2 or 3 years?

Directors: A. Shackleton (UK), J. Twohig, S. Reddin Reg. Office: 1st Floor, Block B, Liffey Valley Office Campus, Quarryvale, Dublin 22, D22 X0Y3 Reg No.: 7246 Ireland



- 27.1. Valero has no response to Q27.
- 28) Should the reduction to 0% be accelerated, e.g. by 2025 or earlier?
- Valero has no response to Q28.

#### Section 4: Ongoing review of evidence and research supporting the policy

Concerning the proposal for a working group to progress further examination and research, addressing the policy challenge of EU obligations and domestic targets:

- 29) Do you agree with this approach in addressing the conclusion in the Biofuel study?
- 29.1. Valero agrees with Byrne Ó'Cléirigh's Biofuel Study Report, and the conclusion that "there is a complex relationship between the requirements of the Renewable Energy Directive and Ireland's national transport targets". There is also a careful balance between Government action through regulation and the application of effective market principles. The former should not undermine the latter.
- 30) If so, what are your views concerning the scope of the examination and research needed?
- 30.1. As deep decarbonisation becomes necessary, there needs to be clear research into the socio-economic impacts on Irish consumers from Government policy in this area. Additionally, Valero believes that an assessment of market barriers, including those intentionally affecting international trade of biofuels as well as those unintentionally affecting market participants, should be included within the scope of these studies.
- 31) In addition to the policy indicators, evidence and research identified in this policy statement, are there other evidence-based inputs which need to be considered to support future policy development and implementation?
- 31.1. Valero has no response to Q31.

Directors: A. Shackleton (UK), J. Twohig, S. Reddin Reg. Office: 1st Floor, Block B, Liffey Valley Office Campus, Quarryvale, Dublin 22, D22 X0Y3 Reg No.: 7246 Ireland