

Biofuels Obligation Scheme

**Consultation on the development of the Biofuels Obligation Scheme
for the period 2021 to 2030**

**including the implementation of the elements relating to renewable
transport fuels in the recast Renewable Energy Directive**

**Submission by Valero Energy (Ireland) Limited
22nd November 2019**

Consultation Questions:

Question 1:

The Climate Action Plan has identified that blending levels of 10% by volume in petrol and 12% by volume in diesel on average must be achieved by 2030 in order to contribute to meeting Ireland's emission reduction target.

The recast Renewable Energy Directive sets out a target of at least 14% renewable energy in transport sector by 2030. These blending levels, together with the expected growth in electric vehicles, will ensure that the 14% target is achieved.

It is intended that the biofuel obligation rate in the Biofuels Obligation Scheme will increase every two years (i.e. in 2022, 2024, 2026, 2028 and 2030). It is intended that the increases will ensure a relatively linear increase in the level of renewable energy used in the transport sector.

Relevant section of the recast Renewable Energy Directive: Article 25(1)

(a) Do you consider these blending levels to be a suitable balance of feasibility and ambition?

We note that the Climate Action Plan identifies that the level of emissions reduction required to meet the 2030 target 'could' (rather than 'must') be achieved by measures in transport including the increase in biofuel blend rate to E10 and B12.

The Marginal Abatement Cost Curve for Ireland to 2030 (Figure 4.2) in this report shows that an increase from B5 to B12 blending has the highest cost, for a limited additional abatement potential. This suggests that it is one of the last actions that should be considered to meet the Non-ETS target and 70% RES target. In addition to the balance of feasibility and ambition, cost must, in our view, be a key consideration driving policy decisions.

The levels of blending identified are extremely ambitious, significantly exceeding the target for the transport sector set-out in the EU recast Renewable Energy Directive. This is likely to be 9% following the reduction allowable with a 2% crop cap.

The introduction of higher levels of ethanol in petrol 'up to E10' is feasible, provided that this is a replacement, rather than an additional product grade, but will not be suitable for all vehicles in use today. An increase to B12 Diesel is only possible if drop-in fuels such as HVO can be sourced as the current specification for EN590 limits the content to 7%.

(b) Do you consider the approach to increasing the biofuel obligation rate appropriate?

Valero agrees that having a proposed obligation trajectory is beneficial for planning purposes, however it is likely that increased availability of qualifying biofuels will not be linear. It is therefore important that a supporting biennial industry-wide consultation process is in place.

Question 2:

Increasing the biofuel obligation rate is likely to involve the introduction of fuels with higher concentrations of biofuel (such as petrol blended with 10% bioethanol and diesel blended with 12% biodiesel on average).

This may lead to compatibility issues with older vehicles, additional cost to the consumer, the necessity to inform consumers in order to ease its introduction, and potentially a need to develop forecourt infrastructure.

(a) What do you view as the technical and consumer challenges associated with a blending level of 10% by volume in petrol on average?

The introduction of E10 (petrol containing up to 10% ethanol) will require a separate base fossil fuel grade to that which is currently used to support E5 blending. With import terminal and downstream infrastructure only supporting a single petrol grade it is unlikely that an E5 'protection grade' could be made available following the introduction of E10.

A Government mandated national introduction of E10 supported by a publicity campaign, informing motorists of the environmental benefits available for E10 compatible vehicles would be key to a successful transition. Not all vehicles will be able to transition to E10, consumers will need to be able to easily check, with confidence that their vehicle is compatible.

A scrappage scheme could be considered for vehicles that can't use E10.

(b) What do you view as the technical and consumer challenges associated with a blending level of 12% by volume in diesel on average?

EN590 diesel specification sets a limit on the amount of FAME that can be blended into diesel at 7%. Higher blending is possible, however this requires vehicle modification, which may impact manufacturer warranties. Blended B20 or B30+ is possible, however this is likely to be suitable for 'captive' bus or truck fleets which are able to refuel from a single, or small number of dedicated depot storage tanks, rather than the wider existing forecourt of truck stop infrastructure. High blend diesel could have a role in the future energy mix, however the contribution that it would likely make to the total level of blending is limited.

Hydrotreated Vegetable Oil, HVO, will be required to increase the blending level to 12%. This product enables blending to exceed 7% whilst ensuring the fuel still complies with the EN590 specification. HVO also has excellent cold weather properties, making it a good technical solution, however these properties also mean that it is in high demand in Nordic Countries which can't use regular bio diesel. It is likely that demand for HVO will exceed supply resulting in a high cost solution for consumers and potential resilience issues.

(c) What types of biofuel would you expect to be used to meet these increased blending levels?

We anticipate that crop ethanol and UCOME/Tallow bio diesel will continue to form the main feedstock types, at least in the early 2020's. It is unclear as to which existing or new Annex IX (A) Advanced biofuels will be available in commercial quantities to meet this specific mandate.

(d) Are such fuels available in sufficient quantities to meet the needs of the Irish market?

Sourcing HVO in sufficient quantities may be challenging with competition from other countries for diesel blending and for inclusion within aviation and heating fuels.

It is anticipated that crop ethanol will continue to be available to support blending at E10.

(e) What actions are needed (outside of the Biofuels Obligation Scheme) to support the increase in blending levels (e.g. consumer communication)?

As previously mentioned, the introduction of E10 will need to be well planned and Government-led to minimise risks associated with transitioning to this new fuel grade.

(f) What is the expected cost to consumers associated with increasing the blending levels?

This will be dependent upon the continued availability of existing biofuels and how quickly new biofuels are developed. The industry has successfully met the obligations to date through blending, however market shortage, or market failure, could result in buy-out being necessary. Buy-out offers a price protection to end consumers as well as incentivising physical blending. Transport fuel users will also face significant additional costs, including higher Carbon Tax, which will also extend to non-road energy uses and influence prices in the wider economy for goods and services.

Question 3:

The recast Renewable Energy Directive sets out that obligation schemes may operate on a volume, energy or greenhouse gas emissions basis. In order to better align the Biofuels Obligation Scheme with the recast Renewable Energy Directive (where targets, limits etc. are based on energy) and to ensure the operation of the scheme is not overly complex, it is intended to move from a volume-based obligation to an energy-based obligation.

The amount of fossil-based energy placed on the market in the transport sector by an obligated party (see below) will be multiplied by the biofuel obligation rate to determine the level of biofuel that must also be placed on the market.

When biofuel is placed on the market, a credit for the level of energy is created. Currently this takes the form of a certificate. When the scheme converts to an energy basis, it is proposed that this will take the form of a level of energy. The energy that is credited will be tradable between obligated parties as is currently the case.

Relevant section of the recast Renewable Energy Directive: Article 25(1)

(a) Do you consider the move to an energy-based obligation appropriate?

Moving to an energy basis will add complexity for suppliers, including Valero. The current obligation is aligned with NORA reporting and volume is also the basis for charging all levies and taxes.

Valero recognises that a move to energy would simplify Government's high-level reporting and monitoring of Ireland's compliance with the recast Renewable Energy Directive.

If the targets are moved to an energy basis our preference would be for the BOS on-line operating system to continue to accept volume data inputs. Energy calculation functionality would need to be added to the operating system. Further enhancements to this system, which supports the existing volume obligation well, could also be considered to assist users plan and manage energy obligations.

Question 4:

The recast Renewable Energy Directive must be transposed into law by mid-2021. It is planned to develop and implement the necessary legislative changes in advance of the deadline.

It is important to provide certainty to fuel suppliers to allow them to prepare for the changes including sourcing supplies of biofuel. It is also intended to continue to operate on a calendar year basis.

It is therefore intended that the Biofuels Obligation Scheme would continue to operate in its current form until the end of 2021 and the changes set out in this consultation would take place from the beginning of 2022.

It should be noted that some minor changes (such as the reduction of carryover to 15% in 2020) will take place in the period prior to 2022.

(a) Do you consider the timing of changes to the Biofuels Obligation Scheme appropriate?

The timing is appropriate, and should be supported by ongoing stakeholder consultation for future years.

Question 5:

The recast Renewable Energy Directive sets out a target of at least 0.2% renewable energy in transport sector to come from advanced biofuels²² in 2022, increasing to 1% in 2025 and 3.5% in 2030.

It is intended to create a secondary obligation for advanced biofuels. This will operate similar to the biofuel obligation. The amount of energy placed on the market in the transport sector by an obligated party (see below) will be multiplied by the advanced biofuel obligation rate to determine the level of advanced biofuel that must also be placed on the market.

The advanced biofuel obligation will be a sub-obligation and therefore advanced biofuels will contribute to meeting both the advanced biofuel obligation and the biofuel obligation.

When advanced biofuel is placed on the market, a credit for the level of energy is created. This will be recorded separately and will contribute to meeting both the biofuel obligation and the advanced biofuel obligation. This energy will also be tradable between obligated parties.

The increases in the advanced biofuel obligation rate will be as set out in the recast Renewable Energy Directive – i.e. 0.2% from 2022, increasing to 1% in 2025 and 3.5% in 2030.

The implementation of an advanced biofuel obligation is considered a key incentive for the introduction of biomethane as a fuel in the transport sector. This could lead to the production of biomethane from relevant feedstocks (such as the biomass fraction of mixed municipal waste and animal manure) and its use in CNG/LNG vehicles. Meeting the advanced biofuel obligation in this way would provide a market support for the introduction and use of biomethane in the transport sector.

Relevant section of the recast Renewable Energy Directive: Article 25(1); Part A of Annex IX

(a) Do you consider the approach to introducing an advanced biofuel obligation appropriate?

Valero supports the approach of setting a sub-obligation and starting this at a low energy inclusion percentage to reflect the likely commercial availability level of qualifying fuels.

Increasing both the quantity and number of qualifying fuels will be critical to achieving higher targets throughout the EU. An increase in mandated demand will not necessarily lead to an increase in supply, or the development of effective, efficient markets.

Advanced fuels should also demonstrate enhanced GHG performance over existing biofuel types and not result in unintended negative environment or social impacts.

Biomethane, when injected into the grid offers GHG savings for existing end gas users as well as a potential new use in heavy goods vehicles. It is used as a feedstock for the production of waste-based ethanol.

Where biomethane is rewarded as an advanced fuel any fossil derived methane should be obligated, consistent with other transport fuels.

(b) What biofuels do you envisage contributing to meeting this obligation?

When this obligation is first introduced, subject to market availability, it may be possible to meet it using wastes that exist as current feedstocks today, such as palm oil mill effluent, grape marcs and wine lees and sewage sludge. As the mandate increases technological advances will be necessary to develop several of the others included within Annex IX (a) to commercial production.

Question 6:

The recast Renewable Energy Directive sets out that the target for renewable energy use in the transport sector includes road and rail transport. Currently, under the Biofuels Obligation Scheme, the obligation only applies to road transport. In order to align the scheme with the recast Renewable Energy Directive, it is intended to extend the scope of the obligation to include rail transport.

Relevant section of the recast Renewable Energy Directive: Article 27(1)(a)

(a) Do you consider the approach to include both the road and rail transport as obligated parties appropriate?

This approach supports the objectives of the Directive. All sectors will need to contribute to GHG reduction. Electrification, supported by renewable generation is likely to demonstrate operational savings, however GHG emissions associated with early replacement of existing rolling stock and network infrastructure should also be included to ensure a real overall saving is delivered.

Liquid biofuel inclusion which leverage existing infrastructure, does present a relatively low cost and prompt opportunity to start reducing rail GHG emissions.

Question 7:

The recast Renewable Energy Directive provides for Member States to exempt, or distinguish between, different fuel suppliers and different energy carriers when setting the obligation on the fuel suppliers, ensuring that the varying degrees of maturity and the cost of different technologies are taken into account. Member States may also exempt fuel suppliers in the form of electricity or renewable liquid and gaseous transport fuels of non- biological origin (e.g. hydrogen produced from renewable electricity) from the advanced biofuel obligation.

It is intended, in order to incentivise the use of alternative fuels, to apply a reduced or zero obligation to specific fuels. This means there would be no, or a reduced, biofuel obligation and advanced biofuel obligation on specific fuels.

It is intended to categorise fuels as follows:

- **No obligation:** CNG, LNG, hydrogen, electricity
- **Half obligation (i.e. an obligation is generated based on half the energy content of fuels placed on the market):** No fuels
- **Full obligation:** All other fossil-based transport fuels

As technologies mature and costs reduce, fuels may have the level of obligation increased.

Relevant section of the recast Renewable Energy Directive: Article 25(1)

(a) Do you consider the approach to exempting certain fuels from the obligation to be appropriate?

Although initial exemption for new fuel types may assist in the development of technologies and trials, it is difficult to justify either longer term or uncapped (volume or energy quantity) exemptions.

Exempting fuel types, whilst rewarding any bio-content, could lead to an increase rather than a reduction in GHG emission. Production cost, rather than process emissions would likely drive supply.

Any exemption should be limited to genuinely new fuel types with capped volume/energy so as not to damage other emerging fuel types or the development of existing fuels subject to mandates.

Question 8:

The Biofuels Obligation Scheme currently operates by issuing certificates in respect of volumes of biofuel which are placed on the market. For each calendar year, an obligated party must hold sufficient biofuel obligation certificates to demonstrate compliance.

As set out above, it is intended to amend the scheme to operate on an energy basis. In place of issuing certificates, a credit will be provided corresponding to the level of renewable energy placed on the market. Each credit of energy will be categorised as one of the following based on the feedstock it was produced from:

- Advanced biofuel (Annex IX Part A)
- Used cooking oil and animal fats (Annex IX Part B)
- Food and feed crops
- All other

As biofuel (or biogas) is placed on the market, the total level of energy credited to each obligated party (or other entity that places such fuels on the market) will increase in the relevant category. Sufficient balances will be required across all four categories to meet the biofuel obligation and in the first category to meet the advanced biofuel obligation.

It should be noted that although some fuels may not generate an obligation (e.g. CNG, LNG etc.), suppliers who are placing biofuels (or biogas) on the market for use by such vehicles will be credited under the Biofuels Obligation Scheme.

To incentivise the use of renewable transport fuels in aviation and maritime, it is intended to credit biofuels supplied for use in the aviation and maritime sector.

To incentivise the use of alternative fuels, it is intended that renewable fuels of non-biological origin (including renewable hydrogen) and recycled carbon fuels will also be eligible for energy credits.

As the supply of electricity for suppliers will not generate an obligation and the measurement of such supplies would create a significant administrative burden, it is not intended to be obligated parties, it is not intended to provide any energy credit for the supply of renewable electricity to road or rail transport.

Relevant section of the recast Renewable Energy Directive: Article 25(1)

(a) Do you consider the approach to issuing energy credits appropriate?

Subject to our response to Q7, Valero broadly agrees with the approach proposed.

We do however seek clarification regarding the supply of renewable electricity to road and rail: We note that it is not intended that renewable electricity will be rewarded with energy credits, or that the supply to these sectors will be measured. This does not appear to be consistent with the proposal outlined in Q9, where multipliers are applied to electricity supplied to road and rail for the purposes of the recast RED.

Both the maritime and aviation sectors are challenging to decarbonise, particularly due to the global nature of these transport modes. Valero supports the development of national mechanisms to reduce emissions, however international cooperation/action is key to addressing both of these sectors.

Question 9:

The recast Renewable Energy Directive sets out that multipliers can be applied to biofuels produced from specific feedstocks. Multipliers can also be applied to renewable electricity supplied to road and rail transport when calculating compliance with the recast Renewable Energy Directive.

The multipliers allow biofuel from specific feedstock to be preferred. They also allow adjustment for the greater efficiency of electric road and rail vehicles compared to fossil fuel equivalents. There may be an increased risk of fraud in the market in assigning multipliers to biofuels from specific feedstock which needs to be considered.

It is considered appropriate that biofuels (and biogas) for transport produced from feedstock listed in Annex IX of the recast Renewable Energy Directive (i.e. advanced biofuels and those produced from used cooking oil and animal fats) shall be considered to be two times their energy content. This is intended to apply when credit is provided in the Biofuels Obligation Scheme and when calculating compliance with the recast Renewable Energy Directive.

It is intended that, with the exception of fuels produced from food and feed crops, biofuels supplied for use in the aviation and maritime sectors shall be considered to be 1.2 times their energy content. Where such fuels are produced from feedstock listed in Annex IX, the 2 times multiplier shall also apply (i.e. a 2.4 times multiplier would apply). This is intended to apply when credit is provided in the Biofuels Obligation Scheme and when calculating compliance with the recast Renewable Energy Directive.

It is intended to apply a multiplier of 4 times and 1.5 times the energy content for renewable electricity supplied to road and rail transport respectively when calculating compliance with the recast Renewable Energy Directive.

Relevant section of the recast Renewable Energy Directive: Article 27(2)

(a) Do you consider the approach to applying multipliers to be appropriate?

The application of multipliers has already proved successful in encouraging the use of waste derived biofuels over crop. Extending the double count to all Annex IX feedstocks, without

the requirement for individual determination will both support the adoption of new feedstocks in Ireland and may assist in meeting the Advanced mandate in particular.

Renewable electricity will have an increasing role in decarbonising transport, with already ambitious 2030 targets set in the National Development Plan further increased in the Climate Action Plan (2019). Future reward for renewable electricity may be appropriate, provided that this is in addition to the baseline of renewable generation.

(b) Do you consider the approach to applying multipliers impacts the risk of fraud?

It is critical to the biofuel industry, obligated fuel supplying parties and to the trust that the public has in carbon reduction measures that any level of fraud is not tolerated. Fuel suppliers must be able to rely upon the integrity processes of the certification bodies throughout the entire supply chain. The further strengthening of these schemes is the best way to ensure that opportunity for fraud to occur is removed. Due to the global nature of supply chains, any solutions including central databases would need to extend beyond the EU.

Question 10:

Under the recast Renewable Energy Directive and the subsequent delegated act²³, biofuel produced from palm oil is classed as being high risk from an indirect land use change perspective. Further feedstocks may be similarly classed in future.

Until 2023, Member States should not exceed the level of consumption in 2019 of any biofuels considered to be high risk. From 31 December 2023 until 31 December 2030 at the latest, the limit is to be gradually decreased to 0%.

Given Ireland has very limited use of biofuels produced from palm oil and the impacts in relation to indirect land use change, it is intended that a limit of 0% will be implemented for all biofuels considered to be high risk from an indirect land use change perspective.

While it will still be permitted to supply these biofuels, no credit will be given in the Biofuels Obligation Scheme and therefore there will be no incentive for suppliers to provide such fuels.

It is proposed that this limit would take effect from 2022 along with the other intended changes to the Biofuels Obligation Scheme.

Relevant section of the recast Renewable Energy Directive: Article 26(2)

(a) Do you consider the approach to biofuels produced from feedstocks that are considered a high risk (from indirect land use change perspective) appropriate?

The approach supports and is fully aligned with the requirements of the recast RED for high risk ILUC feedstocks. It is noted that the directive does introduce an exemption from these restrictions for bioliquids and biomass fuels certified as low ILUC-risk, where production is considered as beneficial, even where these feedstocks are predominantly high ILUC.

Question 11:

The recast Renewable Energy Directive includes a limit on biofuels produced from food and feed crops. The maximum limit in energy terms which is likely to apply for Ireland for these biofuels is 2% based on current use of these biofuels.

The majority of biofuel currently supplied to petrol vehicles is produced from food and feed crops. It is intended that the level of biofuel use in petrol vehicles would double from 5% to 10% and therefore it is intended to set the limit at 2% to provide for this growth.

As the limit set will be five percentage points less than the maximum of 7%, the overall target that applies to Ireland of 14% will reduce to 9%. This reduction only applies when measuring compliance with the recast Renewable Energy Directive. As set out above, the obligation will be set to ensure the overall 14% target is achieved.

When a biofuel produced from food and feed crops is placed on the market, a credit for the level of energy is created. This will be recorded separately to other biofuels or advanced biofuels. While this energy will contribute to meeting the biofuel obligation, it will be limited to 2% of the energy placed on the market (i.e. the energy used to calculate the obligation).

The energy credit for biofuel produced from food and feed crops will be tradable between obligated parties. However, the classification will remain and it will be counted within the 2% limit for the purchaser of the credit.

Relevant section of the recast Renewable Energy Directive: Article 26(1)

(a) Do you consider the approach to biofuels produced from food and feed crops appropriate?

The 2% limit by energy will support an introduction of E10, even where the available feedstocks are all food or feed crop derived, provided that the petrol/Diesel does not change significantly. There is the potential additional demand where waste feedstocks are limited, resulting in a requirement for crop derived biodiesel or HVO.

Question 12:

The recast Renewable Energy Directive includes a 1.7% limit on biofuels produced used cooking oil (UCO) and animal fats²⁴ that can be counted for compliance with the target of at least 14% renewable energy in transport sector by 2030. A multiplier of 2 can apply to such biofuels (see below) which would lead to a maximum contribution of 3.4% towards the target of 14%.

It should be noted that the recast Renewable Energy Directive does not appear to place any restriction on the contribution such biofuels can make to the overall level of renewable energy in Ireland or emission reduction from the transport sector.

As set out above, Ireland can comply with the transport sector target in the recast Renewable Energy Directive by achieving a level of 9% by 2030. Advanced biofuels are expected to contribute 1.75% on an energy basis (equivalent to 3.5% with a multiplier of 2 applied), biofuels from food and feed crops could contribute up to 2%, and UCO and animal fats could contribute up to 1.7% (equivalent to 3.4% with a multiplier of 2 applied). That would lead to 8.9% of the 9% target before electric vehicles and electric rail are counted.

Given the restriction only applies to the transport sector target, how such a limit will be included in the Biofuels Obligation Scheme will need to be considered carefully.

In addition, Member States (where justified) can modify the 1.7% limit taking into account the availability of feedstock. Any such modification shall be subject to the approval of the European Commission.

In 2018, of the 216 million litres of biofuels placed on the Irish market, 162 million litres were biodiesel produced from UCO or animal fats. This represented over 3% in energy terms of the energy used in the transport sector in 2018 and thus is in excess of the 1.7% limit.

Given the level of biofuel used from these feedstocks in Ireland, consideration is being given to seeking the European Commission's approval for a higher limit. Such a request to the European Commission would need to be evidence-based and focus on the availability of feedstock.

Relevant section of the recast Renewable Energy Directive: Article 27(1)(b)

(a) What approach do you think should be adopted in relation to the 1.7% limit on biofuels produced from UCO and animal fats?

In 2020 it is anticipated that the requirement for UCO and animal fats will exceed 5% by energy. In 2019 around 4% of the energy will be from these feedstock types, sourced as qualifying wastes, following the principles of the waste hierarchy. Although the European Commission's approval for a fixed higher limit is required, the Directive does not appear to prevent a Member State deciding at a later date (or dates) to set a lower limit within national legislation.

(b) Do you consider it appropriate to seek the European Commission's approval for a higher limit and, if so, what evidence would you suggest be used to support such a request?

Diesel represented (YTD September 2019) 77% by volume and 80% by energy of Ireland's transport fuel. This requires a far higher proportion of UCO/Tallow than most other EU Member States. It is therefore appropriate to seek the European Commission's approval for a limit higher than 1.7% higher limit.

The relative low percentage of petrol already leads to lower proportional demand for crop-based ethanol than many other Member States and imposes the mandated 2% crop cap.

The waste hierarchy already ensures that wastes used for biodiesel are those for which it can be demonstrated that energy production is the best use.

Biodiesel demand supports an indigenous biodiesel production industry, supported by significant quantities of indigenous tallow, from the agricultural sector.

A 1.7% UCO/Tallow limit would trigger supplier buy-out, increasing costs for consumers, leading to a failure to meet REDII targets and limiting Ireland's ability to maximise GHG savings.

Question 13:

The Biofuels Obligation Scheme allows for up to 25% of the obligation in any one year to be met using certificates carried over from either of the previous two years. This limit is in the process of being reduced to 15% from 2020.

It is intended to retain this carryover system in order to provide suppliers with a level of flexibility, and support the creation of new supplies of biofuels. However, changes will be necessary due to the intention to move from a volume-based obligation to an energy-based obligation. The introduction of a target for advanced biofuels and limits on biofuels produced from food and feed crops will need to be catered for.

It is intended that where an obligated party has, after trades with other parties, an excess credit of energy over and above the level required to meet its obligation, it can be transferred to the following year provided that:

- the excess credit of energy does not include any energy in excess of the 2% limit on biofuels produced from food or feed based crops (i.e. if an obligated party exceeds the 2% limit, this credit of energy cannot be carried to the following year);
- the excess credit carried into the following year can only be used to meet the biofuels obligation and not the advanced biofuels obligation; and
- the excess credit carried from a given year cannot exceed 15% of the obligation for that year.

The treatment of carryover of energy from biofuels produced from used cooking oil and animal fats will need to be examined in the context of the 1.7% limit (see above).

At the end of 2021 it is intended that obligated parties will be permitted to carryover certificates as follows:

- a maximum of 15% of the certificates that a supplier was required to have in 2021 may be carried into 2022; and
- each certificate will be credited with 30 MJ energy²⁵.

(a) **Do you consider the approach to carryover appropriate?**

The ability to carry certificates forward is recognised by Valero as being vital to ensure that biofuel mandates can be met whilst minimising cost to the consumer. Benefits, both in GHG reductions and renewable/qualifying waste energy content occur at the time of blending these certificates.

Where a supplier has the ability to over-blend, they need the confidence that they can either sell the resulting credit to another obligated party, or carry this forward for their own use, or for a future sale.

All limits should, as per the current regulations, continue to apply to the percentage of prior period credits that can be used in the current year. This would mean that 15% of 2022

certificates could be carried from 2021, or purchased from another supplier who has 2021 certificates available.

Advanced biofuel certificates may be difficult to generate, however it is also possible that obligated suppliers will either have opportunity to only acquire these in larger batch quantities (which could present problems in particular towards year-end) or have to commit to an uncertain volume, where the producer has a volume +/- option.

The introduction of advanced biofuel certificates should be able to be carried from prior year, and still qualify towards the advance mandate. A higher initial 25% carry limit would assist the introduction of these fuels.

The current E5 blend results in the requirement for suppliers to over-blend biodiesel to cover the obligation on petrol. Any carry forward certificate would also need to have been generated through biodiesel blending. It would be appropriate to therefore consider applying the biodiesel ML/litre value.

Question 14:

There has been a very high level of compliance with the Biofuels Obligation Scheme. This is ensured through the requirement to pay a compliance fee (referred to as a 'buy-out charge' in legislation) when an obligated party does not meet its obligation. Currently, the fee paid by obligated parties who fail to meet the obligation is €0.45 for each certificate (equivalent to a litre of biofuel) below the required level. This is equivalent to €0.015 per MJ of energy (assuming an average of 30 MJ per litre/certificate as above). There have been very limited examples of this fee being paid to date due to the high level of compliance.

The level of the fee has been set to ensure it is more cost effective for an obligated party to increase the level of biofuels as opposed to paying the compliance fee. Given the future increases in the obligation rate, the marginal cost of supplying more biofuel to the market is expected to increase. It is therefore intended to increase the fee to €0.02 per MJ in 2022, €0.03 per MJ in 2025 and €0.04 in 2030.

The cost of supplying advanced biofuels is expected to be greater than that of other biofuels. Accordingly, it is intended to see the fee for non-compliance with the advanced biofuel obligation to be twice that for the biofuel obligation (i.e. two times the monetary levels set out above for each MJ of energy).

(a) Do you consider the approach to setting the level of compliance fee (or 'buy out charge') to be appropriate?

The buy-out mechanism provides both the supplier and the end consumer protection against unforeseen price spikes. Changes to the current level of €0.45 per certificate (or €0.015 per MJ of energy) should only be considered when and if necessary, rather than on the set basis as outlined.

The effective buyout today is higher than €0.45 per certificate as any decision to stop blending results in an increase in obligated fossil being sold (obligated fossil replacing non-obligated biofuel) and also an increase in the amount of carbon tax payable for the same reason.

It is important to also recognise that the cost of biofuel alone does not set the cost for a blended certificate. This cost is set by the differential between the fossil fuel and the biofuel. The levels of both markets should be considered prior to changing the buyout.

Question 15:

In the event of a significant oil/biofuel supply disruption, the requirements under the Biofuels Obligation Scheme continue to apply. If such a disruption lasted for a prolonged period, it is possible that obligated parties may not be able to meet the requirements of the scheme.

There is currently no scope for any adjustment to the Biofuels Obligation Scheme to take account of such a situation. Fuel suppliers would therefore be liable for compliance costs in not meeting the obligation.

Therefore, there is some merit in providing the Minister scope to adjust the obligation under the scheme in the exceptional circumstances. However, any such adjustment, while providing flexibility to obligated parties, should not impact the overall obligations of the scheme.

It is therefore considered appropriate that the Minister may, in the event of a significant disruption that prevents the supply of biofuels to the market, provide obligated parties flexibility in compliance. This would be achieved by allowing obligated parties the option to make up for any shortfall in a specified calendar year in the following calendar year in place of paying compliance costs.

(a) Do you consider the approach to dealing with a potential supply disruption appropriate?

Valero does not agree that this approach is appropriate. Where a supply disruption, due to either a domestic or international cause requires action to be taken by Government, there should be scope for the mandates to be suspended, rather than deferred.

The same approach should apply where NORA stocks are called upon.

Question 16:

The Biofuels Obligation Scheme is currently limited to the transport sector. In the heating sector, there is a high use of fossil fuels, including oil and natural gas, which could potentially be blended with renewable fuels to reduce emissions in the heat sector.

Responses to the previous consultation of the Biofuels Obligation Scheme highlighted a number of technical challenges to using bioliquids in the heat sector (e.g. a large amount of oil used in the heat sector is stored in tanks outside homes and businesses over long periods of time which may cause issues).

Notwithstanding the input received to date, the introduction of such fuels in the heat sector can bring significant decarbonisation benefits and therefore continues to be kept under consideration.

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

The Biofuels Obligation Scheme relies upon the duty point, typically the truck loading rack at primary fuel terminals, as both the point at which a fossil obligation is incurred and where biofuels are credited. This would not be a feasible approach where the obligation is set for a specific end use, such as heating.

Liquid fuel types used in the heat sector can broadly be split into two, kerosene in the domestic sector and gasoil (marked diesel) for commercial. These fuel types are not solely used for heating and it would not be possible to provide separate, dedicated infrastructure to support additional heat specific product grades. Only when the fuel is supplied to the final customer storage tank, or where such a tank supports different end uses when the fuel is supplied into the boiler, can end use obligation and biofuel award be determined.

(b) What do you see as the technical barriers to introducing such a scheme?

As outlined above designing a scheme that does not place significant burden on those covered by it or those administering it will be difficult. Fuel suppliers are unlikely to know the end use of the product. A significant amount of kerosene sold in Ireland is sold as Dual Purpose Kerosene (DPK), serving the Jet A1 market also.

Technical challenges with the ongoing use of liquid biofuels has been highlighted in responses to the previous consultation. The initial introduction of FAME/UCOME can itself lead to problems for fuel systems even where good housekeeping measures are in place. Particulates and other residues can be dislodged, blocking filters (where fitted), fuel lines and burners.

(c) If a heat obligation scheme was to be introduced, what level of obligation (e.g. in percentage or energy terms) would be appropriate?

The inclusion of any percentage of FAME/UCOME within the heating market will bring with it risk as the product is held in end-consumer tanks for long periods. Potentially, this could be mitigated using biofuel which has been further processed such as HVO, resulting in a more stable bio-kerosene and bio-gasoil. As highlighted in the consultation document, HVO can enable diesel blends to exceed 7% biofuel content and it is also likely to provide a route to produce bio-jet fuel. Demand is expected to exceed supply, so its inclusion in heating fuels could prove both expensive and may not increase the amount of blended biofuel, resulting in increased buy-out.

Question 17:

In addition to the specific questions asked in this consultation, your input is invited in relation to the development of the Biofuels Obligation Scheme for the period 2021 to 2030 including the implementation of the elements relating to renewable transport fuels in the recast Renewable Energy Directive.