

Renewable Fuels for Transport

Briefing Note

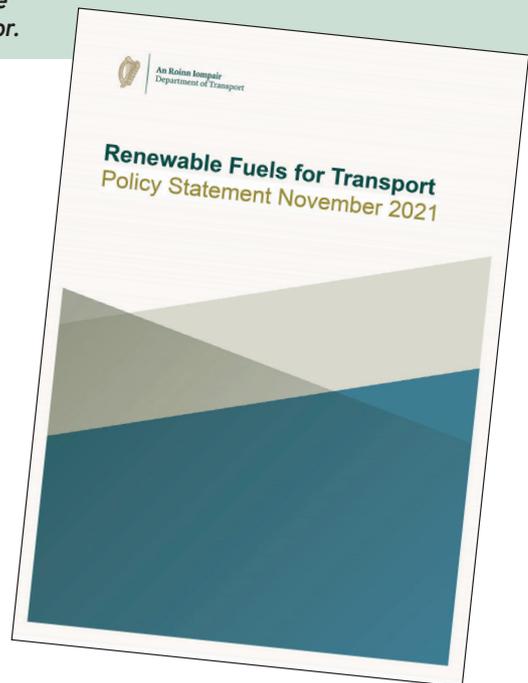
The Policy Statement published on 25 November 2021 sets out a roadmap for the supply and use of renewable fuels in transport energy, including updates to the Biofuel Obligation Scheme. Obligation rates for biofuels by 2025 and out to 2030 will be subject to analysis and review to best ensure that they continue to contribute meaningfully to Ireland's commitment to reduce greenhouse gas emissions.

The road to transition to alternative fuels is a difficult one for the Heavy Vehicle Goods Operator fleets due to the limited supply of affordable and available alternatively fuelled vehicles. This policy statement recognises issues such as limited infrastructure and limited available alternative fuelling options stating 'Placing a renewable fuel obligation on suppliers of these fuels may act as a barrier to further development at this juncture notwithstanding the importance of incentivising renewable fuels such as bioCNG, bioLNG, bioLPG and green hydrogen'. Consideration will also be given to increasing Bio-fuel blends and HVO.

Government is committed to developing a new investment framework for the growth of sustainable forms gas and as a transport fuel in the transport sector.

Key points from the Statement¹

- June 2020, the Government identified the need to significantly decarbonise the transport sector within an overall 7% per annum reduction in greenhouse gas (GHG) emissions to 2030. The recently published Climate Action Plan sets out the actions to deliver on the Government's commitment.
- EU-wide renewable energy target of 32% and future ambition under the EU Fit for 55 proposals.
- **Biofuels Obligation Scheme**
 - To continue to progressively increase the level of obligation to at least 2030, in line with EU energy policy.
 - The continued increase in the level of renewable fuel in transport, in particular blending of biofuels with petrol and diesel will continue to play a role in the medium-term.
 - The Department will set the **biofuel obligation to enable a 10% blend of ethanol in petrol (E10) and a 12% blend of biodiesel in diesel (B12) respectively**, by 2025. This builds upon the 2019 Climate Action Plan ambition to introduce higher blend rates by 2030 and the National Climate and Energy Plan 2021-2023 commitment to increase the renewable biofuel content of motor fuels.
- Biofuels produced from Used Cooking Oil and Category 1 and 2 Animal Fats currently provide over 3% of the energy used in the transport sector in Ireland.
 - (any energy from these biofuels above 1.7% will not be considered as renewable when calculating RES-T or for meeting renewable transport targets).
- Subject to enabling legislation being in place, it is expected that from 1 January 2023, certificates will be awarded based on the energy of the renewable fuel placed on the market as set out in Annex III of RED II.



¹ <https://www.gov.ie/en/policy-information/168c6-renewable-fuels-for-transport-policy-statement/>

- Suppliers are encouraged to supply a higher blend of bioethanol in meeting the biofuel obligation. In order to ensure an early transition to E10 as set out in the Climate Action Plan (ie by 2025), the Department will review the options to further incentivise its supply.
- The Department will engage with the Industry, Academia and others to ensure that the supply of indigenous and imported biofuels undergoes a rigorous assessment on full life-cycle greenhouse gas emissions reduction to ensure it is consistent with REDII GHG reduction levels. This assessment will also include [Indirect Land Use Change] ILUC, biodiversity pollution and a value assessment in terms of cascading use of bio-materials referred to previously.
- Article 7A of the Fuel Quality Directive requires fuel suppliers to achieve a 6% carbon intensity reduction and this was subsequently extended by the European Commission to an annual requirement. In 2020 less than half of the fuel suppliers in Ireland met this target.²
- NORA is responsible for enforcement of supplier compliance with this target.³
- The Department of Transport will review the current compliance framework and penalties with a view to a more robust enforcement regime for non-compliance with the Fuel Quality Directive requirement and taking into account the higher GHG intensity target for renewable energy in transport anticipated by the EU Fit for 55.
- In 2019, transport was responsible for 41% of energy-related CO₂ emissions in Ireland (up from 40% in 2018).
 - Fuels such as electricity, compressed natural gas (CNG), liquefied natural gas (LNG), liquefied petroleum gas (LPG) and hydrogen can be used as lower emitting alternatives to oil in transport.
 - In 2020, 42% of electricity produced in Ireland was from renewable sources. The Climate Action Plan 2019⁴ set a target of 70% renewable electricity by 2030.
- Currently, however, it is expected that electrification will be mainly limited in the road sector to smaller vehicles such as passenger cars and light goods vehicles in the earlier half of the decade.
- Electrification of the vehicle fleet offers a pathway to zero tailpipe emissions, with several co-benefits such as improved air quality, reduced noise pollution and less fossil fuel dependence.
- There are currently c. 45,423 EVs registered on Irish roads. Subject to technological advances, it is expected that by the mid-2020s EVs (cars and vans) will reach total cost of ownership (TCO) parity with conventional vehicles.
- **Full electrification will remain a challenge for heavy vehicles. CNG, LNG, LPG and hydrogen vehicles may present a cleaner alternative to diesel and petrol, including light and heavy goods**

vehicles and the bus and coach sector. These are fuels which can be significantly replaced with renewable fuels (which could be produced indigenously) when vehicles and infrastructure are in place.

- It is Government and EU policy to support the deployment of alternative fuels⁵. This is reflected in the Causeway and Green Connect projects for the roll-out of the CNG fuelling network, policy advice for projects looking at the development of green hydrogen infrastructure, the introduction of the Alternatively Fuelled Heavy-Duty Vehicle (AFHDV) grant in March 2021, and the Budget 2022 announcement of the expansion of the Accelerated Capital Allowance scheme for natural gas propelled vehicles and related equipment to include hydrogen vehicles and equipment.
 - The infrastructure for deployment of these alternative fuel technologies in Ireland is in early development. Placing a renewable fuel obligation on suppliers of these fuels may act as a barrier to further development at this juncture notwithstanding the importance of incentivising renewable fuels such as bioCNG, bioLNG, bioLPG and green hydrogen. Therefore, suppliers can avail of credit under the Scheme (subject to sustainability requirements being met). We must ensure the switch to alternative fuels to avoid fossil fuel lock-in. This policy concerning alternative fuels will be reviewed in 2022 to ensure this lock-in is avoided.
- A category for certain renewable fuels called ‘Development Renewable Fuels’ will be added to the scheme and multiple credit will be awarded to incentivise their deployment.

| Fuel | Multiple credit |
|--|-----------------|
| 1 Green Hydrogen | 4x |
| 2 Biomethane | 1.5x |
| 3 Hydrotreated Vegetable Oil ⁶ /Hydro processed Esters and Fatty Acids ⁷ (HVO/HEFA); and other approved sustainable aviation fuels listed in ASTM D1655 ⁸ | 1.5x |
| 4 RFNBOs and certain other renewable fuels used in the aviation or maritime sectors | 1.2x |

- Biomethane can be imported or produced indigenously from the anaerobic digestion of organic material including brown bin waste and wastes from the food production and agriculture sectors. It offers the potential to significantly replace CNG and LNG. Biomethane can be used with or as a substitute for natural gas in any application which uses natural gas including transport. Government is committed to developing a new investment framework for the growth of sustainable forms gas and as a transport fuel in the transport sector.

2 Biofuels Obligation Scheme Annual Report 2020, https://www.nora.ie/_fileupload/457-21X0088%20-%20BOS%20Annual%20Report%20for%202020%20for%20publication.pdf

3 Under S.I. 160 of 2017, European Union (Greenhouse Gas Emission Reductions, Calculation Methods and Reporting Requirements) Regulations 2017

4 <https://www.gov.ie/en/publication/ccb2e0-the-climate-action-plan-2019/>

5 <https://www.gov.ie/en/press-release/0c575f-minister-publishes-national-policy-framework-on-alternative-fuels-in>

6 Hydrotreated Vegetable Oil (HVO) is a form of renewable diesel that can be used as a replacement fuel or used in higher concentrations in diesel than fatty acid methyl esters (FAME)

7 Hydro processed esters and fatty acids (HEFA) are a form of HVO which has been approved for (up to 50%) blending with aviation fuel

8 <https://www.astm.org/Standards/D1655.htm>

- HVO can be blended in significantly higher proportions with fossil diesel than the more commonly used biodiesel, FAME (fatty acid methyl esters). However, demand for this fuel is high and supply is very limited. The cost of the fuel is therefore high. HVO can also be further processed into HEFA which can be used as a sustainable aviation fuel.
- This category will be kept under review. The list of fuels may be extended or reduced. Multipliers may also be adjusted.
- Electricity supplied to road and rail transport does not currently qualify for credit under the Biofuels Obligation Scheme. While electricity suppliers can apply for carbon savings for electricity supplied to road transport under Article 7a of the Fuel Quality Directive, there is a need to look at how electricity for transport can be integrated into the overall reporting system for renewables in transport. In this regard it would be prudent to include electricity in the Scheme.

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- A public consultation will be undertaken in 2022 to seek views on the focus of next Policy Statement.