

SEKAB position on

THE REVISION OF THE EU ENERGY TAXATION DIRECTIVE

About SEKAB

SEKAB is a leading Swedish producer of ethanol-based biofuels and bio-based chemicals. SEKAB runs a Biorefinery demo plant that produces advanced cellulosic ethanol from forest-based materials such as saw dust, forest residues, and straw. We are currently also developing a partnership with Maersk to produce advanced biofuels for maritime transport based on forest residues. SEKAB is the only company in the EU to produce certain bio-based intermediate chemical products from bioethanol.

Revision of the ETD is urgently needed to base taxation on energy content & CO₂ emissions

SEKAB strongly supports the revision of the Energy Taxation Directive (ETD) to align it with the EU's climate ambitions and environmental policy objectives.

As acknowledged by the Commission, the current taxation model engrained in the ETD based on fuel volume has led to a situation where renewable alcohol-based fuels are more heavily taxed than fossil fuels, contrary to the EU's climate and energy goals. This means that **in the EU today sustainable renewable fuels like high-blend ethanol and advanced alcohol-based biofuels cannot compete with fossil fuels without government support**. This is hampering the development of advanced biofuels in Europe.

If the EU is to reach the ambitions set out in the EU Green Deal, **the ETD needs to be revised as a matter of urgency to put in place taxation based on energy content and CO₂ emissions, instead of volume**. The revised ETD should also allow member states to differentiate between the minimum tax levels for renewable, low-carbon fuels and fossil fuels, in order to incentivise the use of energy from renewable sources, including sustainable biofuels.

The ETD and crop-based biofuels

In accordance with the revised Renewable Energy Directive (RED II), we agree with the aim to minimise the use of feed crops for energy production where their use entails a high risk of indirect land-use change (as defined in EC Delegated Regulation (EU) 2019/807). SEKAB does not use palm oil or other feedstocks based on oil crops and is committed to producing 'deforestation-free' biofuels. Nevertheless, we believe that **continued support is needed for sustainable high blend (with a biomass content of above 90%) ethanol-based biofuel such as ED95, when used in the heavy-duty transport sector** where there are no readily available alternatives to achieve CO₂ reductions.

ED95 – a sustainable solution for decarbonising heavy-duty transport

SEKAB produces ED95, which is used in buses and trucks with adapted diesel engines and is **helping to decarbonise heavy-duty transport in Sweden, France, Norway and Finland**. ED95 can achieve **up to 90 percent lower CO₂ emissions** than fossil diesel, but also has **significantly lower emissions of nitrogen oxides as well as particulates** than equivalent diesel usage. Engines adapted to run on ED95 cannot run on diesel.

ED95 consists of 95% pure ethanol with the addition of ignition improver, lubricant and corrosion protection. Existing service station infrastructure can be used to make it easily available to consumers, which is an advantage compared to other low-carbon options for trucks that require new infrastructure to be installed at high cost.

Currently SEKAB's ED95 production relies on inputs of ethanol produced from starchy crops such as corn, sugar beet and wheat, as advanced feedstocks are not available on the required scale. SEKAB also produces

advanced cellulosic ethanol from forest-based materials such as saw dust, forest residues, and straw. In the coming years, we aim to move increasingly towards advanced biofuels. We already have the technology in place; however, commercialisation takes time.

Continued support for sustainable high-blend biofuels must be allowed under the EU State aid guidelines until a revised ETD is in place

Today the production of high-blend biofuels such as ED95 relies on government support due to the volume-based approach in the ETD which is disadvantageous for high blend biofuels with a lower energy content than their fossil alternatives. In Sweden for instance, an exemption is granted from the Swedish CO₂ and energy taxes for high-blend biofuels¹ such as ED95 for the part of the blended biofuel that derives from biomass, in order to allow high-blend biofuels to compete with fossil alternatives.

Given that it is likely to take several years until the revised ETD is applicable, it is of utmost importance that government support schemes are allowed to continue in the meantime. In this respect, the revised EU state aid guidelines for environmental protection and energy (EEAG) that will apply from 2022 must allow continued support for sustainable, high-blend crop-based biofuels in heavy-duty transport, until such time that the revised ETD enters into force.

Adverse impacts of a potential gap in support for high-blend biofuels from 2022 until the entry into force of the revised ETD

If national support schemes are discontinued prior to the entry into force of the revised ETD because such schemes are no longer allowed under the revised EU State aid guidelines, the result will be a **support gap of several years for sustainable high-blend biofuels such as ED95. This would hinder the achievement of the EU and national climate targets and would have wide-ranging, disruptive implications for the markets for these biofuels, including:**

- The Swedish production of these sustainable biofuels will stop. Swedish and other European **biofuel producers would not be able to compete with fossil fuels** given the disadvantage under the current EU tax regime under the ETD. Producers such as SEKAB would be forced to stop the production of high-blend bioethanol like ED95. If the possibilities to use high blend biofuels (ED95) is hampered, the R&D investments will be lost and the EU market for this sustainable transport solution probably closed.
- **The production of trucks that can run on bioethanol would be likely to cease**, as it would become too expensive to run these vehicles. If this happened, trucks would not be available to meet future demand. A similar problem occurred in 2008 when the production of ED95 busses was discontinued, despite their widespread use in a number of cities in Sweden (including Stockholm), due to uncertainties about the regulatory environment for biofuels.
- **Consumer choice for low carbon options would be reduced**, adversely impacting the ability of industrial consumers to decarbonise their operations. There is increasing demand from large international corporates in Sweden for low CO₂ transport options and these companies rely on ED95 to help achieve their CO₂ reduction pledges. If high blend bioethanol is no longer produced, these companies have no viable alternatives to achieve low CO₂ truck transports.
- **Fuel retailers' options to fulfil diesel blending mandates would be restricted to less sustainable alternatives.** ED95 currently provides an alternative to HVO as the main fuel used by fuel retailers to fulfil diesel blending mandates. This brings welcome competition in particular in markets where there are very

¹ The current tax exemptions cover the following high-blend biofuels: high-blended FAME (B100); high-blended ethanol (E85, ED95); hydrogenated vegetable and animal oils and fats (HVO); and biogas.

few HVO suppliers. High blend bioethanol, such as ED95 will likely disappear from the market, which will lead to higher concentration and less competition on the fuel market in general.

- **Investment in pure bioethanol fuels and advanced biofuels and related technologies would be discouraged.** Whereas continued support would provide security to investors in terms of the future market for biofuels-based transport solutions, including advanced biofuels, a support gap would send the opposite signal. The manufacturing of adapted bioethanol engines has required significant investments in research and development. If the production of these fuels is stopped because of regulatory obstacles, this will discourage manufacturers from further future investments in biofuel engines. Similarly, consumers are less likely to re-invest in using biofuels of any kind if they perceive the regulatory environment for biofuels as being unstable.
- **The likelihood of achieving the EU and national decarbonisation targets would be severely hampered in the area of heavy-duty transport.** Ultimately, it would **hinder the achievement of the EU climate and decarbonisation targets**, as well as national decarbonisation targets in the area of heavy-duty transport such as Sweden's aim to reduce CO₂ emissions in transport by 70% by 2030. It would also **restrict the ability of Sweden to achieve its clean procurement targets for heavy-duty vehicles under the revised Clean Vehicle Directive.**²

Why is high-blend ethanol like ED95 needed?

Sustainable high-blended biofuels (i.e. biofuels with a biomass content of above 90%) that use non-oil, crop-based feedstocks and achieve significant CO₂ reductions compared to fossil alternatives have an **important part to play in helping the EU achieve low-carbon mobility**, which is necessary if the EU is to achieve carbon neutrality by 2050.

It has been widely acknowledged³ that electrification of transport will not be enough to achieve these ambitions on its own and sustainable biofuels will be needed to decarbonise transport modes where electrification is not a viable option such as heavy-duty, air and maritime transport.

ED95 is a **readily available solution for decarbonising heavy-duty transport** and its viability in trucks and buses has already been demonstrated. In addition to achieving significant CO₂ emission reductions, ED95 can contribute to **improved air quality** through reduced particulate emissions.

² Article 5 and Annex, Table 4 of Directive (EU) 2019/1161 of 20 June 2019, Official Journal L 188/116 12 July 2019

³ *Technology Roadmap: Delivering Sustainable Bioenergy*, IEA, 2017; *Global Energy Transformation: A Roadmap to 2050*, IRENA, 2018