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Sekab

SEKAB position on

THE REVISION OF THE EU STATE AID GUIDELINES ON ENVIRONMENTAL PROTECTION AND ENERGY (EEAG)

Introduction

SEKAB welcomes the publication of the revised EU State Aid Guidelines on Environmental Protection and Energy (EEAG) 2022 as a step in the right direction towards ensuring that EU Member States can design bespoke support schemes for technologies which help governments meet their environmental and decarbonisation goals.

In particular, SEKAB welcomes the removal of restrictions for support for food- and feed-based crops, as well as the additional flexibility offered to Member State governments to offer support to products that will quickly decarbonise hard-to-abate sectors, such as heavy-duty transport, by providing State support to high-blend- and advanced biofuels.

As acknowledged by the Commission, the current taxation model ingrained in the Energy Taxation Directive (ETD) based on fuel volume has led to a situation where biofuels, including renewable alcohol-based fuels, are more heavily taxed than fossil fuels. 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 hampers the development of the use of bioethanol in Europe, including the possibility to run heavy vehicles on pure bioethanol.

To allow sustainable high-blend biofuels to compete with fossil alternatives, in Sweden for instance an exemption is granted from the Swedish CO_2 and energy taxes for high-blend biofuels[1] such as ED95 for the part of the blended biofuel that derives from biomass.

In this respect, the revised EU state aid guidelines for EEAG that will apply from 2022 must allow continued support for sustainable, high-blend (with a biomass content of above 90 %) ethanol-based biofuels in heavy-duty transport, until such time that the revised ETD enters into force.

Having reviewed the content of the revised EEAG in detail, in addition to the Implementing Regulation on rules to verify sustainability and greenhouse gas emissions saving criteria and low indirect land-use change-risk criteria[2], the proposed revisions to the Renewable Energy Directive (RED III)[3], and the Energy Taxation Directive[4], SEKAB welcomes the overall intent of the document, but fears that the EU State Aid guidelines will not deliver on its ambitions and will result in significant uncertainty for the EU biofuels sector, in particular producers of sustainable bioethanol fuels.

This would therefore restrict investment and innovation in the sector; depriving the EU of the increased renewable fuels needed to meet the renewable energy targets, and depriving consumers of having access to cost-effective alternatives to fossil fuels in the decades to come.

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[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.

[2] Commission Implementing Regulation (EU) on rules to verify sustainability and greenhouse gas emissions saving criteria and low indirect land-use change-risk criteria

[3] European Commission, Proposal for a Directive amending Directive (EU) 2018/2001, Regulation (EU) 2018/1999, Directive 98/70/EC, and repealing Council Directive (EU) 2015/652 [2021] COM(2021) 554 (Renewable Energy Directive)

[4] European Commission, Proposal for a Council Directive restructuring the Union framework for the taxation of energy products and electricity (recast) [2021] COM(2021) 563 (Energy Taxation Directive)

Our concerns regarding the draft document and recommendations for change are detailed below.

1. The State Aid EEAG will significantly limit the scope of what support biofuels can be offered

The Commission's revised EEAG notes that support can only be offered to biofuels, bioliquids, biogas, and biomass fuels that are compliant with the sustainability and greenhouse gas emissions savings criteria set out under the RED II directive and its implementing or delegated acts.

Annex IX of Directive (EU) 2018/2001 [RED II], sets out the feedstocks eligible to produce advanced biofuels. It furthermore states that the Commission has the authority to *amend* the feedstock list by *adding* to it, but not by *removing* from it.

However, Annex IV of the Commission's Implementing Regulation *on rules to verify sustainability and greenhouse gas emissions saving criteria and low indirect land-use change-risk criteria*[5], considerably restricts the scope of products that can be considered as "waste or residue" under RED II. Specifically, Annex IV omits practically the full scope of products listed under point (o), Annex IX, of RED II, including bark, branches, precommercial thinnings, sawdust, black liquor etc. Only "tall oil" is retained under Annex IV to the Commission's Implementing Regulation.[6] This would mean that any biofuel, bioliquid, biogas, or biomass not produced from tall oil would be ineligible for EU State Aid support.

This presents both significant challenges for governments to support technologies in hard-to-abate sectors such as heavy-duty transport, and for industry, which makes investment decisions over a 15year horizon. Investment plans for SEKAB alone are forecasted between €500 million – €1 billion. Investments that might be frozen unless there is certainty for investors.

For example, SEKAB has invested significantly in a technology called CelluAPP, which allows us to transform forest industry residues, such as sawdust from sawmills, into advanced fuels and chemicals. We are planning to build a plant producing 100,000 m3 of advanced ethanol, 55,000 tonnes of marine fuel, 5,000 tonnes of LBG, and to use lignin as bitumen replacement in asphalt. When the plant is up and running, we estimate to have the technology ready to produce chemicals from lignin.

Our existing chemical plant uses bioethanol as a feedstock. The planned biorefinery will use **sawdust** and **cutter shavings** as feedstocks, residues from sawmills. Today we also deliver advanced bioethanol produced as a residue from pulp production. Brown liquor and black liquor are part of the chemical recirculation in pulp production and are a future excellent feedstock for chemicals as well as for advanced fuels. **However, all of these residues have been omitted from the Commission's Implementing Regulation on RED II, and hence will not be eligible for support under the EEAG.**

SEKAB has made a submission to the European Commission on the Implementing Regulation calling on the Commission to amend Annex IV and insert the full scope of point (o) from Annex IX of RED II.

Should the Commission fail to amend Annex IV of implementing legislation, the EEAG must be amended to allow Member States to offer support for products made from waste residues listed under Annex IX of the RED II Directive, rather than Annex IV of the Implementing Regulation

[5] European Commission, Draft Implementing Regulation on rules to verify sustainability and greenhouse gas emissions saving criteria and low indirect land-use change-risk criteria [2021] Ares (2021)4234307

[6] *Ibid.* Annex IV

2. The revised State Aid EEAG risks restricting countries from offering support to biofuels who have exceeded their biofuel limits under RED III, delaying decarbonisation efforts and will perpetuate the tax disadvantages for sustainable biofuels

The revised Renewable Energy Directive (RED III) seeks to cap and reduce the per annum growth of biofuels and biogas from food and feed-based crops by mandating that the share of these fuels in the total energy consumption within the transport sector is no more than 1% higher than it was in 2020 and that such fuels can constitute no more than 7% of the overall fuel mix in the Member State's transport sector.

In accordance with the 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.

However, in its revised EEAG, the Commission writes that "indirect land-use change (ILUC) occurs when the cultivation of crops for biofuels, bioliquids and biomass fuels displaces production of crops for food and feed purposes". **This is not inherently true**, as much of the biofuels produced from food and feed-based crops are the **products of over-production** and would otherwise be wasted were they not used for fuels.

The EEAG further notes that "the Commission will therefore, in principle, consider that support for biofuels, bioliquids, biogas and biomass fuels exceeding the caps defining their eligibility for the calculation of the gross final consumption of energy from renewable sources in the Member State concerned in accordance with Article 26 of that Directive, do not produce positive effects which outweigh the negative effects of the measure" and that the Commission "will verify whether Member States took into account in the design of their support mechanisms the need to avoid distortions on the raw material markets from biomass support, in particular for forest biomass". The application of the cascading principle will need to be ensured by biofuels producers and then audited by an independent assessor, adding significant costs. Additionally, audits apply a different timescale, considering only short-term decisions. This creates uncertainty for the sector, as we deal with long-term production, associated costs and investments. These investments cannot happen an environment where the future of the sector is dependent on an auditor's evaluation, and without knowledge on how sustainability and emission reduction guarantees will be calculated.

Such clauses **further distort the cost-competition between sustainable biofuels and fossil fuel alternatives** by (i) reducing the scope of sources which producers can purchase from (ii) reducing the level of support which can be given to the biofuels sector and (iii) significantly increasing the sustainability requirements and thus administrative costs on the biofuels sector.

This will have a significant and negative impact on EU Member States which have plans to quickly decarbonise their transport sectors with the help of biofuels such as bioethanol. Sweden, for example, is one of Europe's fastest Member States to decarbonise its transport fleet. Sweden's ambitious environmental goals for domestic transport are to reduce emissions by at least 70% by 2030 compared to 2010, and the Swedish Government plans to end the sale of combustion engine cars some 5 years earlier than the proposed European ban.[7]

[7] Renewable and fossil-free fuels for a sustainable future, RISE (Research Institute of Sweden), online via *https://www.ri.se/en/what-we-do/our-areas/fossil-free-fuels*

In line with the country's ambitious decarbonisation targets, and aided by high-blend ethanol biofuels such as ED95, which can deliver a CO_2 emissions reduction of up to 90%, the share of biofuels in the Swedish transport sector has been growing. This level and speed of decarbonisation can only be achieved with the continued use of high-blend ethanol fuels such as ED95, and the now oncoming advanced biofuels.

In addition to the increased sustainability criteria imposed on the biofuel sector, sustainable high-blend biofuels like ED95 and advanced biofuels are also put at a tax disadvantage due to the current Energy Taxation Directive. SEKAB welcomes the Commission's revised proposal for a new Energy Taxation Directive but would caution that this will take several years to be adopted, as the European Council will only now begin to review the document. Furthermore, even if the revised Energy Taxation Directive does correct some of the market distortions for fossil fuels, the current proposal only allows for "advanced sustainable biofuels" to be discounted below the minimum taxation levels. This would exclude key agents of decarbonisation such as ED95 and so State Aid must be possible for such fuels under the revised EEAG.

Sustainable high-blend bioethanol (with a biomass content of above 90 %) that use non-oil, crop-based feedstocks and achieve significant CO_2 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 acknowledged[8] 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 CO_2 emission reductions, ED95 can contribute to **improved air quality** through reduced particulate emissions.

To support the rapid decarbonisation of the heavy duty transport sector, Member States with high decarbonisation goals must continue to be allowed to support biofuels from food- and feed-based crops, even in circumstances where they have exceeded 7% fuel mix in the transport sector.

3. The revised State Aid EEAG will lead to uncertainty for the European biofuel sector and underinvestment in innovation

The revised EEAG provides uncertainty the European biofuels sector, due to the vagueness of certain clauses; the complexity of the legislative framework with which it interplays; and the timing of the publication.

The revised EEAG was published in advance of the European Commission's Fit for 55 Package, which includes proposed revisions to the Energy Taxation Directive and Renewable Energy Directive. Both of these pieces of legislation have strong inter-linkages with the EEAG.

The EEAG, however, appears to include principles borrowed from the proposed revisions to the Renewable Energy Directive (RED III) under the Fit for 55 Package, as well as definitions from the existing Renewable Energy Directive (RED II), causing confusion for industry and thus uncertainty for investors. For example:

[8] Technology Roadmap: Delivering Sustainable Bioenergy, IEA, 2017; Global Energy Transformation: A Roadmap to 2050, IRENA, 2018

- The EEAG defines "biofuels" by referring back to the existing Renewable Energy Directive (RED II), which is set to be revised, and for which new definitions are proposed to be inserted under Article 2 in the Commission's proposed amendments under the Fit for 55 Package.
- Elsewhere, the EEAG borrows principles from the proposed revisions of the Renewable Energy Directive (RED III), including ensuring that the *cascading principle* is applied to the design of state aid support schemes and thus avoid distorting the forest biomass sector.
- The Commission also notes that it will not consider offering support to biofuels from food and feed-based crops, where their share of the overall energy consumption in the transport sector is above 7%. Again, this is a principle borrowed from the Commission's revised proposal on the Renewable Energy Directive (RED III).

Given that the existing RED II Directive is not yet in force in full in most EU Member State, and the Commission is continuing to finalise the implementing legislation under the Directive, this creates significant uncertainty for business.

This inconsistency in referencing both to existing Directives soon to be revised, and the borrowing of principles of proposed revisions, will create confusion and thus uncertainty for the biofuels sector, risking future investments and thus supply to the European market.

While the intention of the proposed revisions to the EEAG for 2022 represent a step in the right direction, amendments are needed to the current text to ensure that Europe can meet its ambitious decarbonisation targets and phase out fossil-fuel transport at the earliest opportunity.

4. The revised State Aid EEAG will not fulfil on its ambitions and will lead to sub-optimal outcomes for European businesses, consumers and environmental goals

If national support schemes are either discontinued or significantly restricted for the European biofuels sector, prior to the entry into force of the revised ETD, the result will be a **support gap of several years for sustainable high-blend biofuels such as ED95 as well as their advanced counter-parts from waste residues under Article IX of RED II.**

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 advanced bioethanol, and further research into renewable fuels will stop. Swedish and other European **bioethanol 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) are hampered, the R&D investments will be lost and the EU market for this sustainable transport solution would probably be 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 CO_2 transport options and these companies rely on ED95 to help achieve their CO_2 reduction pledges. If high blend bioethanol is no longer produced, these companies have no viable alternatives to achieve low CO_2 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 to markets where there are very 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.
- **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 CO_2 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**.[9]

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 lignocellulosic ethanol from forest residue-based materials such as sawdust, straw, and other residues. 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. **Annex:**

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 CO_2 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 an 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 a 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.

For further information please contact

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[9] European Union, Directive (EU) 2019/1161 of the European Parliament and of the Council of 20 June 2019 amending Directive 2009/33/EC on the promotion of clean and energy-efficient road transport vehicles [2019] OJ L 188/116, Art. 5 and Annex, Table 4

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