Region Östergötland

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Position regarding legislation that affects conditions to promote bioenergy

Bioenergy offers a range of benefits and potential for Östergötland

Östergötland is a prosperous region, with a thriving forestry industry and agricultural sector. Östergötland already has an established, efficient system for the production and use of biogas, which creates added value in the form of:

- reduced environmental impact from fossil fuels,
- reduced use of non-renewable resources for the production of fertilisers,
- increased energy security and local jobs.

Östgötland's successful agricultural tradition shows that it is possible to produce arable crops with a high degree of efficiency and a minimum input of fossil fuels. Östergötland is also home to a thriving forestry sector, with a substantial production that contributes to gross biomass growth in the region while protecting biodiversity. The forest industry also has established logistics chains with a majority of production facilities in the county. The combination of the current production surplus and the existing infrastructure in the county creates favourable conditions for the development of bioenergy products with the potential to create environmental benefits in the region while promoting economic growth.

Considering the values that guide the current systems and the potential to further develop the production and use of biomass, Region Östergötland believes that **four** main principles should guide the region's bioenergy policies and regulations:

1. Bioenergy shall contribute to a circular bioeconomy

Region Östergötland seeks to develop and support bioenergy that contributes to a circular bioeconomy. For Region Östergötland, a circular bioeconomy means a production system that is based on residual products and/or that a significant proportion of the raw material used is further processed into new products. In its assessment, the region has considered arguments concerning land use and the inherent conflict between energy and food production; however, the region considers that:

- The use of the terms "food-based" and "first-generation" bioenergy should be eliminated, as the raw material itself does not necessarily dictate what the overall benefits of bioenergy will be for the climate, environment and society as a whole.

2. Bioenergy shall be evaluated based on the benefit from a systems perspective

Region Östergötland considers that environmental, climate change and energy legislation should be developed with consideration for the climate and environmental benefits, as well as the socio-economic benefits. The region shall support a bioenergy industry that contributes to a circular bioeconomy and does not generate harm based on national or international environmental objectives, provided that the industry has good environmental performance from a systems perspective.

- By "good performance", Region Östergötland means that the bioenergy industry makes a significant contribution to protecting the climate and is characterised by resource efficiency.

- By “systems perspective”, Region Östergötland means that a life cycle perspective is applied in the region’s bioenergy industry, including both upstream (including the indirect impact on land use – ILUC risk) and downstream effects (substitution). The life cycle perspective shall be applied to all products originating from biorefineries, such that both the environmental impacts and benefits are allocated to all products. The benefits of biomass extraction for nature conservation must be able to be attributed to the bioenergy activities.

Furthermore, Region Östergötland considers that the systems for reporting the performance of bioenergy, such as guarantees of origin and emissions trading, must be clear and transparent.

3. Policy tools should focus on promoting investments in renewable energy and discouraging the use of fossil fuels.

Region Östergötland considers that these policy tools must be simple, clear and long-term in nature and should create an incentive for increasing the proportion of renewable resources used in the region relative to that of fossil fuels. The region therefore supports the establishment of ambitious targets for the share of renewables in the fuel mix. The region considers that:

- All subsidies for fossil energy shall be abolished
- All administrative requirements for renewable fuels shall also apply to fossil fuels, for example, guarantees of origin, climate calculations and sustainability reporting.

4. Bioenergy shall have sustainable supply chains

The region emphasises the need for sustainable supply chains to prevent the potential for human rights violations, activities that are harmful to the environment or that do not comply with rules concerning working conditions. This means that Region Östergötland does not support the production of bioenergy that has negative consequences, for example, deforestation of the planet’s rainforests or the displacement of indigenous peoples.

Explanations of concepts

First generation biofuels

Fuels made from food crops grown on arable land, such as corn, oilseed rape and sugar cane. These fuels have been criticized on a number of grounds, for example, that the use of these food crops has led to an increased need for arable land and deforestation, that the crops demand large amounts of fertiliser and increased spraying with harmful plant protection products and that the crops have a low energy yield. First generation biofuels are also called *conventional biofuels*

Second-generation biofuels

Fuels that are made from residual materials, such as food waste, manure, straw and forest residues. Second generation biofuels are also called *advanced biofuels*

Resource efficiency

Natural resources, such as metals, minerals and biomass, are managed efficiently during the life cycle so that a greater value is generated with a lower input of materials and energy.

Life cycle perspective

Means that the entire production chain is included when, for example, climate change performance is calculated – from resource extraction until final disposal or recycling.

Upstream effects

The effects of a portion of the production chain that occur before a product is ready for use, for example, the impact of resource extraction.

ILUC risk

ILUC stands for Indirect Land Use Change. ILUC describes the risk of indirect negative effects from the use of crops for biofuels. ILUC cannot be calculated precisely; the risks are instead assessed through model calculations. The model calculations are based on scenarios that show whether there is a risk of indirect effects when land that was previously reserved for food or feed production is converted to the production of biomass for fuel. A high ILUC risk means that the need for food and feed is met through an intensification of current production or by bringing non-agricultural land into production elsewhere.

Downstream effects

The effects of a portion of a production chain that occur after a product's use phase or as a result of use.

Substitution effects

Effects arising when the product replaces another product, for example, when biogas is consumed in place of fossil derived diesel.

Biorefinery

Production facility where a bio raw material is used for several products with very few by-products or residual products. (Compare with a refinery in conventional industry that produces a product and where the residual products are landfilled or destroyed by incineration).