

Naturskyddsföreningen | Bra Miljöval

Biofuels

Criteria 2013:1



Bra Miljöval

Good Environmental Choice

Ecolabelling by the Swedish Society for Nature Conservation

The Swedish Society for Nature Conservation (SSNC) is a non-profit organisation that is independent of political and religious affiliations. We are driven by an ambition to preserve the environment and protect people's health. It is partly due to us that seals, sea-eagles and peregrine falcons are no longer endangered species in Sweden. We promote biological diversity, and strive to prevent climate change, acidification, eutrophication, the spread of dangerous chemicals and much more.

However, it is not enough to protect nature in reserves or stop individual polluters. We need to reduce our total environmental impact. Companies that adapt their production methods and products to reduce the burden on the environment play a vital role in this work.

Good Environmental Choice is SSNC's own ecolabel and one of the tools we use to drive development towards a sustainable society. Good Environmental Choice places demanding environmental requirements on the products and services that it approves for labelling.

Thanks to Good Environmental Choice, hundreds of products have been reformulated and environmentally adapted. Ecolabelling has produced concrete results. For example, Good Environmental Choice labelling has almost completely eliminated the environmentally hazardous surfactant LAS from Swedish detergents.

Another example is that electricity labelled with Good Environmental Choice has placed requirements on water flow through hydroelectric power plants, and, as a result, has increased the biological life in the affected rivers.

Good Environmental Choice is a part of the SSNC's work with consumer power. The Green Consumerism network comprises active members who work to encourage green consumerism in our regional groups around the country. For example, they conduct the Green Consumer Week campaign every year. Thanks to this campaign, the range of products in most supermarkets is becoming increasingly environmentally friendly. In the eyes of consumers, the Good Environmental Choice label is a symbol they can trust. For licensees, the label brings competitive benefits.

Good Environmental Choice criteria currently exist for the following products and services:

- Textiles
- Electricity
- District cooling
- District heating
- Goods transport
- Passenger transport
- Chemical products
- Auto and home insurance
- Grocery shops



Bra Miljöval

Read more about Good Environmental Choice at www.bramiljoval.se
The criteria can be ordered via e-mail: gbg@naturskyddsforeningen.se
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NOTE: This text is a translation. The original Swedish version always takes precedence.

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Foreword

Fuel is a new product area that can be labelled with the Swedish Society for Nature Conservation's ecolabel "Bra Miljöval" ("Good Environmental Choice"). Labelling is one of the Swedish Society for Nature Conservation's tools for promoting the development of more sustainable energy systems. The Society has established these criteria for how fuel should be produced in order to be labelled Good Environmental Choice.

Increasing realisation of our impact on climate and biological diversity has led to a desire among producers for ecolabelling of different types of fuel by the SSNC. Ecolabelled fuel will help consumers make decisions that are better for the environment.

We establish requirements that lead to lower-impact fuel extraction, determine which chemical additives may be used in fuel to minimise health and environmental effects and we require, when relevant, adherence to the Swedish Forest Agency's guidelines. We further demand that fuel labelled with Good Environmental Choice should be complemented by fund allocation. These invested funds should be used in projects that encourage biological diversity in forests and the countryside. Binding concrete environmental benefits with fuel labelling is entirely unique.

The criteria for fuel labelled with Good Environmental Choice have been established by the secretary-general of the Swedish Society for Nature Conservation. The Society would like to thank licentiates, official representatives, branch organisations, researchers, county councils and others who have been of great assistance and shared valuable knowledge in the process of developing these criteria.

Eva Eiderström

Head of Good Environmental Choice

Goals

- Achieve lower-impact fuel extraction
- Preserve and benefit biological diversity
- Prevent damaging effects on health and the environment
- Cultivate socially responsible forestry and agriculture

Scope of the criteria

The criteria take effect from 2 April 2014 and remain in force until updated criteria take effect, no sooner than 2 April 2016.

All kinds of renewable fuel can be labelled with Good Environmental Choice if the way they are produced fulfils established criteria. This document establishes the demands for the entire chain from forestry to product refinement.

In order to be labelled with Good Environmental Choice, a fuel must meet two groups of criteria. First, criteria with specific demands on each fuel type establish which fuels can be labelled with Good Environmental Choice. Secondly, additionality requirements lead to direct environmental benefits.

Both the criteria and the additionality requirements must be met for a fuel to receive a licence to use the label Good Environmental Choice.

Definitions

Biofuel	Fuel that has biomass as its original material. The fuel can have undergone a chemical or biological process or transformation and have been previously used.
Biogas	Gas which primarily consists of methane and which is developed from biomass or from the biologically degradable part of waste.
Biomass	Material of a biological origin that has not or has only slightly undergone chemical or biological transformation.
Forests of high conservation value	<p>Forests with high conservation value are forests with one or more of the following properties:</p> <p>a) Forested areas that have global, regional, or national importance: -concentrations of biological diversity (e.g. endemic species, endangered species, refuges); and/or -large forests of regional significance, which comprise a part of the forestry unit or in which the forestry unit is included, where viable populations of most or all naturally occurring species exist to their natural extent and quantity</p> <p>b) Forested areas which are located in or which include rare, threatened or endangered ecosystems</p>

c) Forested areas which support fundamental natural functions in critical situations (e.g. protection for watersheds, erosion control)

d) Forested areas which are of crucial importance to fulfilling a local society's fundamental needs (e.g. provisions, health) and/or crucial for a local society's traditional cultural customs (areas of cultural, ecological, economic or religious importance which are established in interaction with such local societies).

In Sweden "forests with high conservation value" include the following:

- Forested areas of national interest with a concentration of key habitats and/or areas populated by red-listed species outside key habitats
- Mountainous forests located above the conservation boundary
- Forests protected by Swedish law and forests within protected areas for water sources.

Wood fuel

Wood fuel includes biofuel from timber that has not undergone chemical processing and biofuel where trees or parts of trees are the source material, e.g. bark, needles, leaves, timber as well as fuel resources from the forestry and timber industry such as chips and shavings. Fuel resources can have been previously used, for example demolition material or packaging timber. Fuel from waste paper and black liquor is not included as wood fuel.

This definition follows the Swedish Standard for solid biofuel and peat. Biomass includes material of biological origin that has not or only slightly undergone chemical or biological transformation.

1 General criteria

- 1.1 Extraction, transport, and production of the product should occur in a manner which the Swedish Society for Nature Conservation determines does not put the possibility of an environmentally and socially sustainable society at risk.
- 1.2 Non-renewable energy included in the product's life cycle may make up at most 10% of the product's energy content. Included in this, beyond non-renewable fuel, is non-renewable energy used for:
- extraction, transport and refinement of fuel
 - processing energy during production and
 - completion of the fuel as a final product (e.g. packaging).
- 1.3 All chemical additives in the biofuel should be recorded. Those additives that are not officially classified should be self-classified. Additives of cadmium, lead, mercury and chrome (including compounds) as well as organic halogen compounds and phthalates are not allowed. In addition, chemical substances and compounds and their known degradable products may not be classified with the following hazard statements, according to regulation (EC) 2011:1088:
- H340: May cause genetic defects
 - H341: Suspected of causing genetic defects
 - H350: May cause cancer
 - H351: Suspected of causing cancer
 - H360: May damage fertility or the unborn child
 - H361: Suspected to damage fertility or the unborn child
 - H362: May cause harm to breast-fed children
- 1.4 In those cases where the biofuel is intended to be used in industrial incinerators, the ash produced as a result of incineration of the product must, where technically possible, fulfil the demands of the Swedish Forestry Agency's recommendations for ash recycling depending upon the ash quality.
- 1.5 Biomass included in the product should not be composed of genetically modified organisms (GMOs).
- 1.6 The producer should, where possible, adopt a system for tracing the origin of all non-recycled biomass used for the production of the labelled product. Mass balancing is allowed for allocation. Knowledge of biomass origin must, however, include confirmation that the biofuel does not come from illegal logging or areas with high significance for conservation.
- 1.7 Producers of biofuels labelled Good Environmental Choice with sales of at least 10 GWh/year should contribute an annual provision to an environmental fund equivalent to 500 SEK/GWh energy content in the environmentally labelled product they have sold. This environmental fund provision can be used for projects undertaken within the licensees' own operations or placed in the Swedish Society for Nature Conservation's Environmental Fund Fuel, see Attachment 1- Environmental Fund Fuel.
- 1.8 The licensee should have an environmental policy established by the management which directs the company to undertake to improve its environmental work. The company should have a designated post for environmental responsibility for the organisation.

For some of these hazard statements, there are subvariants stating specific effects and/or ways of exposure. For example, the hazard statement ?H360Df: May damage the unborn child. Suspected to damage fertility.² Please note that none of the concerned subvariants are allowed.

Industrial incinerators include district heating boilers and other industrial boilers.

Potential traces of GMOs from recycled products can be acceptable. An example of a biofuel that can be accepted despite a certain level of contamination is bio-oil based on recycled food waste where the presence of GMOs cannot be controlled.

Non-recycled biomass here means biofuels composed of raw materials not previously used in other products.

2 Criteria for biofuel labelled with Good Environmental Choice

Biofuel from forestry

- 2.1 Wood fuel products, including tops and branches, should originate from FSC-certified forestry operations or equivalent. Processed biofuel such as pellets and briquettes from non-recycled material should originate from FSC-certified forestry or equivalent.
- 2.2 Root stock may not be included in the product. Leaves and needles may not systematically be included, but should be left in the forest.

Reason for requirement

- (2.2) Root, leaf, and needle stock contains important nutrients for the forest floor. Therefore they should be left in the forest.
- 2.3 Biomass from illegal logging may not be included in the product.
- 2.4 Biomass from areas with high significance for conservation may not be included in the product.
- 2.5 Exceptions for criterion 2.4 regarding the origin of biomass in areas with high significance for conservation can be made for cases where the biomass comes from habitat management in these areas. Exceptions must be obtained in writing in advance and are valid for a limited time.
- 2.6 Biomass from forestry in Sweden may not come from forested land that has been converted from pasture or meadowland with high significance for conservation (according to the Swedish Board of Agriculture's TUVAs database) since 2013.

Biofuel from agriculture

- 2.7 Agricultural methods should fulfil ecological cultivation principles, in other words KRAV-certification or equivalent.
- 2.8 If biomass from agriculture outside Europe is used, documentation should be able to be presented proving that social and land rights issues have been handled responsibly. This includes operations being managed according to existing laws and regulations and that owner and user rights to the forest are ensured for the long term, and clearly defined and documented. Any indigenous peoples' rights should be respected. The production should also be anchored in the community and respect workers' rights. These requirements follow to FSC's principles 1-4.

FSC certification requires that forestry operations pledge to take ecological, economic and social responsibility through the requirements established by the Forest Stewardship Council, FSC. Checks are made annually. FSC certification of smaller forestry actors is facilitated by the possibility of group application, which results in lower administration demands and lower cost.

Biofuel of non-recycled material means biofuel primarily composed of material not previously used in another product.

Biofuel from horticulture, gardening and plantations

- 2.9 Biofuel from horticulture and gardening, such as liquid vegetable oils, should be developed in a manner that does not encourage erosion or have a negative impact on local sustainable ecological, economic, and social development.
- 2.10 Liquid biofuels collected from plantations and crops can be included as approved fuel in the product provided that they fulfil the requirements of the "Law on sustainability criteria for bio propellant and liquid biofuel" (SFS 2010:598) (Regulation 2011:1088).
- 2.11 Production of a biofuel, vegetable oil or similar creates byproducts and residues. Byproducts and residues created in the process chain should be considered as bio oil from plantations or crops.
- 2.12 Primary palm oil is not approved.

Biobränslen från industri

- 2.13 Non-cultivated byproducts from industry can be included in the product provided that they originate from FSC-certified forestry operations or equivalent. Byproducts should be traceable to the relevant industry
- 2.14 Clean byproducts from industry can be included in the product. Byproducts should be traceable to the relevant industry.
- 2.15 Byproducts from paper and pulp production can be included in the product provided that the biomass content exceeds 80%.
- 2.16 Bio oils collected from industry can be included in the product provided that they fulfil the requirements of the law "Lag om hållbarhetskriterier för biodrivmedel och flytande biobränslen" (In English "Law on sustainability criteria for bio propellant and liquid biofuel") (SFS 2010:598) (Regulation 2011:1088).

Examples of non-cultivated byproducts from industry are chips, shavings and bark from a sawmill.

An example of a clean byproduct from industry is waste from furniture production.

Examples of byproducts from paper and pulp production include black liquor, tall oil, and fibre sludge.

Bio oil should not contain byproducts such as PFAD (palm fatty acid distillate) that originate from the distillation process of palm oil manufacture.

Byproducts from the manufacture of primary products which include palm oil, for example in the food industry, should primarily be recycled in further processes and secondarily for energy production.

Biofuel from waste

- 2.17 Sorted waste can be included in the product provided that the ash can be returned to the forest according to the Swedish Forestry Agency's guidelines for ash recycling depending upon the ash quality.
- 2.18 To ensure ash quality, waste should be well sorted, free from metals and other impurities as well as unpainted and non chemically treated.

Gaseous fuels

- 2.19 Biogas collected from fertiliser plants can be included in the product.
- 2.20 Biogas from anaerobic digestion of waste can be included in the product.
- 2.21 Biogas from sewage sludge can be included in the product.
- 2.22 Biogas from energy crops can be included in the product, provided that the substrate fulfils the relevant criteria.
- 2.23 Gas from gasification processes can be included in the product, provided that the substrate fulfils the relevant criteria.

Substrate consists of the biomass in which the biogas has its origins.

3 Life Cycle Analysis

- 3.1 The licensee should, if the Swedish Society for Nature Conservation deems it necessary, calculate typical carbon dioxide equivalents coupled to the input biomass. A basic life cycle analysis is done in point 1.2. The Swedish Society for Nature Conservation will inform the licensee if complementary life cycle analyses are required. For gaseous fuels, leakage of methane should be calculated in the life cycle analysis for its greenhouse gas impact.

Appendix 1 Environmental Fund – Biofuel

Companies delivering fuel labelled Good Environmental Choice where the product's energy volume exceeds 10 GWh should allocate funds equivalent to 500 SEK/GWh for environmental improvements to a company account or a fund provided by the Swedish Society for Nature Conservation. If the funds are paid into a company account, these funds should be isolated from other investments within the company. These funds can, however, comprise partial financing of a larger project. In this case it must be clear which parts of the project are financed by the fund.

The environmental fund should primarily be used for improving biological diversity in forests and other areas traditionally affected by biofuel production. Companies applying for Good Environmental Choice labelling should specify what actions they will take. The measures need not be applied in areas specifically coupled to the environmentally labelled product, with the exception of fuels with origins outside Europe. In these cases the fund investments should be connected to the local area or environmental problems that are relevant for the environmentally labelled fuel. The work should begin no later than six months after the company has received its licence. The results should be presented during accounting and be evaluated when the measure has been applied.

Demands for projects that can be financed through the Environmental Fund

- The measure should target the improvement of biological diversity in forests.
- The measure should not be required by legislation or current permits.
- The project owner must be able to demonstrate the environmental improvements of the measure.
- The measure should be documented and function as a good example.
- The project owner should be able to host study visits and provide relevant information on request.

Approved projects that can be financed by the Environment Fund

- Measures that aim to increase or improve the biological diversity of the forest.
- Measures that aim to preserve or recreate forested areas which are worthy of specific protection.
- Projects that aim to preserve or encourage red-listed species that are threatened or can be harmed in connection with logging or biofuel refinement.
- Financing of applied research that leads to increased knowledge of how the effect of logging and refinement of biofuels on the environment can be minimised.
- Financing of applied research that strengthens specific red-listed species that are determined to be at risk from logging.
- Natural inventorying with the aim of developing measures that improve the biological diversity of the forest.

The Swedish Society for Nature Conservation can approve other measures after specific examination. The list will be updated regularly.



Swedish Society for Nature Conservation

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The Swedish Society for Nature Conservation is an environmental organisation with power to bring about change. We spread knowledge, map environmental threats, create solutions, and influence politicians and public authorities, at both national and international levels. Moreover, we are behind one of the world's most challenging ecolabellings,

“Bra Miljöval”(Good Environmental Choice). Climate, the oceans, forests, environmental toxicants and agriculture are our main areas of involvement.

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