

# Passenger Transport

## Criteria 2011:1



# Bra Miljöval

## Good Environmental Choice. Swedish Society for Nature Conservation's eco-labelling.

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 partially 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, over-fertilization, 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 eco-label and one of the tools we use to drive development towards a sustainable society. Good Environmental Choice places high environmental demands on the products and services that it approves for labelling.

Thanks to Good Environmental Choice, hundreds of products have been reformulated and environmentally adapted. Eco-labelling has resulted in 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 demands on the water flow through hydroelectric power plants, and, through this, benefited plants and animals in the affected rivers. Where power plants run on biofuel, our requirement that ash is returned to the soil has led to a sustainable process.

Good Environmental Choice is a part of the SSNC's work on consumer power. The Green Consumerism network comprises active members who run the green consumerism work 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 environment 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:

- Heat energy
- Electrical energy
- Freight transport
- Passenger transport
- Grocery stores
- Flower shops
- Paper
- Textiles
- Chemical products
- Single-family home and car insurance
- District cooling



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Read more about Good Environmental Choice at [www.bramiljoval.se](http://www.bramiljoval.se)

The criteria can be ordered via e-mail: [gbg@naturskyddsforeningen.se](mailto:gbg@naturskyddsforeningen.se) or downloaded from [www.bramiljoval.se](http://www.bramiljoval.se)

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## Introduction

Passenger transport marked with Good Environmental Choice is one of the tools used by the SSNC to advance the development of a more sustainable transport system. With these criteria, the SSNC stipulates how passenger transport has to be conducted in order for it to be approved for Good Environmental Choice labelling.

It is a dilemma that the transport system, which is so beneficial for us, at the same time is one of the greatest threats to our environment. Transport contributes to a number of environmental problems, including an increased greenhouse effect, harmful air quality, noise, eutrophication and acidification. In addition to this, it has effects such as encroachment into the countryside, the creation of barriers in the landscape, stress and congestion in our towns and cities. Knowledge of the influence of transport on the environment has resulted in consumers turning to the SSNC in search of concrete guidance on how to reduce the environmental impact caused by their transport. By selecting passenger transport labelled with Good Environmental Choice, consumers are getting a more energy efficient form of transport, with limited climate impact and reduced environmentally harmful emissions into the air.

In this version of the criteria, the requirements have been altered from simply making demands regarding the proportion of non-renewable energy, to stipulating demands regarding energy efficiency, irrespective of energy carrier. In addition, demands are also made regarding emissions of carbon dioxide equivalents for the entire life cycle. The criterion for environmental harmful emissions is being tightened, with nitrogen oxides acting as indicator emissions.

One entirely new element in these criteria is the demand for increased knowledge about fuel's origins and traceability. Also new is the establishment of an environmental fund for projects that contribute to reducing the environmental impact of passenger transport.

The criteria for Good Environmental Choice passenger transport labelling have been ratified by the SSNC's Secretary-General. The SSNC would like to thank licensees, representatives of authorities and industry associations, researchers, county associations and interest groups, which have been of great help and have shared their valuable knowledge and opinions while the criteria have been under development.

### **Eva Eiderström**

Head of Good Environmental Choice

## Purpose

- To work to ensure that more consumers opt to travel in a more energy-efficient manner, with limited climate impact and low emissions
- To work to achieve technical developments towards energy-efficient passenger transport, regardless of the fuel and type of vehicle
- To reduce transport's environmentally harmful emissions into the air

## Scope of the criteria

The criteria apply from 7 June 2011 until the next version enters into force, at the earliest on 7 June 2014. Anyone wishing to label a product with Good Environmental Choice or to refer to the label must satisfy all the demands and enter into a licensing agreement with the Swedish Society for Nature Conservation.

All forms of personal transport can potentially be labelled with Good Environmental Choice, and it is the actual travel service that is labelled, not the vehicle. The agreement with the SSNC defines the travel service as a product/service. The product is the transport activity that moves passengers with one or more types of vehicle. The same criteria apply, irrespective of the means of transport used.

## Different opportunities to use eco-labelling

An entire system of travel services, e.g. a train operator's entire range of lines:

- All travel services that are sold under a brand. The system as a whole must satisfy the 2011 criteria for passenger transport.

Or, a part of a system of travel services, e.g. a specific line or service;

- The combined transport on a specific line is labelled.
- A specific hire car or car pool service is labelled.

In all cases, only vehicles that satisfy the licence terms' specific conditions as regards labelling regulations may carry the Good Environmental Choice label.

## Definitions

The following terms are used frequently in this document. Other definitions are explained in the margin as they arise.

<b>Biofuel</b>	Liquid or gaseous fuel that is produced from biomass and that is used for transport. According to Article 2, European Parliament and Council directive 2009/28/EC of 23 April 2009
<b>Energy carrier</b>	An energy carrier stores or transports energy. Examples include electricity, petrol and diesel.
<b>Fossil fuel</b>	Fuel that is made from non-renewable raw materials such as oil, fossil gas or coal.
<b>Carbon dioxide equivalents</b>	Common measurement unit for emissions of greenhouse gases. Indicates the amount of a greenhouse gas expressed as the amount of carbon dioxide that produces the same climate impact.
<b>Passenger kilometre</b>	A measure of the combined journey length and calculated by multiplying the average journey length by the number of completed journeys. See appendix 1 for a further explanation.
<b>Product</b>	The product comprises the transport activity that moves passengers with one or more types of vehicle. A product could be a specific line or a travel service. It could also be an entire network of lines; the factor which determines whether this should be counted as one or more products is whether the lines can be linked together to form a system. It is also possible to label a single line, even if it is part of a larger system.
<b>Means of transport</b>	A technical system for the transport of passengers and/or goods. Synonymous terms include transport facilities, vehicles (normally land-going) and craft (normally sea-going or flying)
<b>Type of transport</b>	Different means of transport are classified into different types. The principle is that means of transport with equal emissions values and energy consumption, and that use the same type of energy carrier, are classified at the same type of transport.

# 1 General demands

- 1.1 The total amount of energy supplied to vehicles for their operation may not exceed 0.18 kWh per passenger kilometre (0.65 MJ per passenger kilometre). This calculation shall be performed in accordance with appendix 1.
- 1.2 The total climate impact for energy consumption may not exceed 50 g carbon dioxide equivalents per passenger kilometre. The entire life cycle of the energy carrier must be taken into consideration. This calculation shall be performed in accordance with appendix 1.
- 1.3 Emissions of nitrogen oxides when operating vehicles may not exceed 0.3 g per passenger kilometre. This calculation shall be performed in accordance with appendix 1.
- 1.4 Passenger transport labelled with Good Environmental Choice must be accompanied each year by a fund allocation for transport-related environmental projects. This fund allocation shall correspond to 25% of the variable licence fee. The fund allocation can be used for projects that are carried out in the licence holder's own operations or be placed in the SSNC's central transport-related environmental fund. Demands placed on projects that can be financed through the fund allocation are described in appendix 2.

## **Justification for the demands:**

[1.1] Conserving resources, regardless of whether they are renewable or fossil, is of central importance in the creation of a more sustainable transport system. The criteria stipulate demands regarding the energy requirement linked to the execution of the transport service. This energy requirement includes both renewable and fossil resources.

[1.2] Environmental performance by various energy carriers can vary significantly, and for this reason it is necessary to use life cycle values so that emissions that occur during the production and distribution of the energy carrier are also taken into consideration.

# 2 General demands for energy carriers

- 2.1 The licensee must report what they are doing to increase awareness about the origin and environmental performance of the energy carrier that is used in the product.

## **Justification for the demands:**

[2.1] Knowledge about the origins of fuel is poor, and traceability of fuel is a precondition for being able to stipulate environmental and social demands in the future. For example there is fuels eco-labelled with the Nordic Ecolabel, with demands being placed on the entire chain from raw material to the finished fuel. As regards electricity, knowledge about its origins can be verified through labelling, such as Good Environmental Choice, and guarantee of origin.

### 3 Demands for electricity

- 3.1 All electricity that is used for the operation of vehicles must originate from renewable energy sources such as hydroelectric power, wind power, solar energy, wave and tidal energy, as well as the combustion of biomass or biogas. A guarantee of origin or equivalent must be used as verification of the energy source.
- 3.2 For traffic in Sweden, at least 50% of the total amount of used electricity for operating the vehicle must be labelled Good Environmental Choice.
- 3.3 For traffic beyond Sweden's borders, at least 50% of the total amount of electricity used for operating vehicles must satisfy the demands corresponding at least to the criteria for Good Environmental Choice electrical energy.

A guarantee of origin or equivalent refers to the electronic document that has been produced in accordance with the Act on Guarantees of Origin for Electricity (2010:601), Good Environmental Choice or RECS.

**Justification for the demands:**

[3.2] Electricity labelled with Good Environmental Choice is the SSNC's eco-labelling for electrical energy. Electricity labelled with Good Environmental Choice places environmental demands on production, as well as providing extra environmental benefit (additionality) through e.g. improvements to energy effectiveness, which differs from electrical products that are solely labelled with their origin.

### 4 Demands for fuel

- 4.1 The licensee must ensure that the fuel that is used in the labelled product satisfies EU directive 2009/30/EC, known as the fuel quality directive, as well as EU directive 2009/28/EC regarding the promotion of energy from renewable energy sources, known as the renewable directive.

The Directives are converted into national legislation in the Act on Fuels (2011:319) and the Act on Sustainability Criteria for Biofuels and Bioliquids (2010:598)

**Justification for the demands:**

[4.1] In order to reduce the environmental impact caused by fuel, it is important to stipulate demands in respect of both renewable and fossil fuels. The raw materials that are used to produce the fuel have a significant impact on the overall climate impact, as well as on biodiversity and local communities.

The fuels that are available on the market differ as regards both their production methods and their impact on the climate, and there is considerable potential to stipulate demands and thereby influence fuel suppliers during purchasing and procurement.

At present there are no systems for verifying the source and the environmental performance of the majority of the fuels that are conventionally used. It is therefore difficult currently to stipulate longer term demands than securing compliance with legal requirements.



## 5 Demands for vehicles

- 5.1 With regard to vehicles, at least one of the following demands must be fulfilled:
- a. When there is a toilet on board the vehicle, only eco-labelled soap, toilet paper and paper towels shall be used.
  - b. When cleaning is performed on board the vehicle, only eco-labelled detergents shall be used.
  - c. When handling waste on board the vehicle, opportunities to sort at source shall be present in at least one location per vehicle/bus and sorting must be into at least three clearly marked fractions (e.g. newspapers, paper packaging and returnable cans/bottles).
  - d. When food and drink are sold on board the means of transport, at least 50% of the range, calculated as a percentage of the number of goods out of the total range, shall be ecological.
  - e. When performing maintenance on vehicles, only eco-labelled hydraulic fluid, lubricants and washer fluid, or hydraulic fluid, lubricants and washer fluid recommended by TRB Sweden, shall be used.
  - f. When washing vehicles, only eco-labelled washing facilities shall be used.

Select one of the following demands. If the licensee has a pool comprising various means of transport, it can choose one demand for e.g. trains and another for buses. Only demands that are applicable to the means of transport in question may be selected.

Good Environmental Choice, Nordic Ecolabel and the EU Ecolabel count as eco-labels.

The term cleaning agents refers to all-purpose cleaners, heavy-duty detergents, toilet cleaners and soft soap.

The term ecological means KRAV-labelled or labelled with the Euro leaf.

## 6 Corporate demands

- 6.1 The licensee must have an environmental policy agreed by the company management, under which the company undertakes to make continuous improvements to its environmental performance.

## Appendix 1 Calculation

### Passenger kilometres

Passenger kilometres must be calculated by multiplying the average journey length (per line) by the number of completed journeys (per line) on an annual basis. For example, a bus that transports 10 passengers/journey with an average journey length of 20 km produces 200 passenger kilometres. The driver who is a part of the transport service or other personnel will not be included as passengers. For example, bus drivers or conductors will not be included as passengers, although a person who hires a car and drives it himself will be counted as a passenger.

For hire car or car pool services, passenger kilometres will be calculated by multiplying the journey length by the number of passengers in the car. If it is not possible to demonstrate that there was more than one (1) passenger, it will be assumed that only one (1) person was travelling in the car.

### Total energy consumption

Energy consumption will be calculated as the total amount of energy that is supplied to the vehicle over the course of a year in order to carry out the transport activity. All energy consumption for the vehicle must be included, i.e. production kilometres plus empty kilometres. For a bus, for example, the entire fuel consumption for a year is calculated, including journeys to and from the depot, positioning for the station, etc.

For electrically powered vehicles, all electricity that is supplied to the vehicles for operation will be included. For electrically powered trains, the losses that occur between the power converter station and the trains are included in the total energy consumption.

Energy consumption must be calculated as an annual average for the entire fleet of vehicles used for the product. Energy consumption during production and distribution of energy carriers will not be included.

### Climate impact

Emissions of carbon dioxide equivalents must be calculated on the basis of indicated energy consumption and for the energy carrier's CO<sub>2</sub> eq emissions from a life cycle perspective. The unit must be g CO<sub>2</sub> eq/energy unit. This includes emissions from the cultivation or extraction of raw materials, the transport, refinement and production of fuels/electricity, as well as final consumption in vehicles. The production and operation of infrastructure (roads, tracks) and the production of vehicles is not included in the calculations.

The following are accepted as sources of the energy carriers' emissions values: NTM (the Network for Transport and Environment), the Energy Authority/the Swedish Environmental Protection Agency/the Swedish Transport Administration or the most recently available reference values according to the European Parliament and Council directive 2009/28/EC, published on [www.biograce.net](http://www.biograce.net), or studies that have been carried out with the same system limits and standards. The sources for the emissions values as well as the method and system limits that have been used in the production of the values must be presented in the application.

When calculating the global warming potential expressed in carbon dioxide equivalents (CO<sub>2</sub> eq), the following conversion factors must be used:

Carbon dioxide CO<sub>2</sub>: 1

Methane CH<sub>4</sub>: 25

Dinitrogen oxide (laughing gas) N<sub>2</sub>O: 298

### Nitrogen oxides

For vehicles with combustion engines, the vehicles' nitrogen oxide emissions must be calculated in accordance with the certification value or Euro-classification.

## Appendix 2

### Provision for environmental fund projects for passenger transport

Companies that sell passenger transport labelled with Good Environmental Choice must set aside funds corresponding to at least 25% of the variable licence fee in SEK. This fund allocation is performed over and above the licence fee. The resources that are to be allocated in the fund can either be placed in the company's own account or in the SSNC central environmental fund for transport. If the resources are placed in a separate account, this money must be kept separate from other resources in the company. The fund's resources can be used for the part-financing of a larger-scale project, however. In this case, it must be made clear which parts of the project are being financed by money from the fund. All projects financed through the fund allocation must have the prior approval from the Product Officer for Passenger transport at the SSNC.

A company applying for Good Environmental Choice labelling for its products must report the measures it intends to carry out, the anticipated results and the organisation holding responsibility. The work must commence at the latest in the business year after the licence is obtained. The project period can extend over calendar years. The results must be reported in the audit, and the final account rendered when the action has been completed.

The purpose of the fund is to contribute towards a reduction in passenger transport's impact on the environment. The measures must be documented, the results must be measurable and able to be used as good examples to show to other parties. Potential areas of action that can be covered by the fund are:

- Measures for facilitating environmentally adapted transport – stimulating passengers' potential to combine cycling and walking with eco-labelled passenger transport.
- Measures to improve energy efficiency in order to reduce total energy consumption.
- Measures that reduce the need to travel, and thereby result in a reduced environmental impact.
- Reducing and limiting the impact of transport and the infrastructure on the environment, in order to counter the loss of biodiversity.

Other areas of action are also possible. The fund will be used to facilitate measures that would not have been carried out without this support or would not have been carried out to the same extent. Projects that are carried out by the licensee must not include measures that can be viewed as a requirement in order to obtain permits or meet legislation.



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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 toxins, and agriculture are our main areas of involvement.

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