

About Nordic Swan Ecolabelled
Coffee services



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Consultation

Content

| | |
|--|----|
| Summary..... | 3 |
| 1 Environmental impact of the coffee service | 4 |
| 2 Justification of the requirements..... | 8 |
| 3 Description of the service | 9 |
| 4 Raw materials: coffee, tea, cocoa, milk, and sugar | 10 |
| 5 Coffee machines | 15 |
| 6 Reuse | 22 |
| 7 Transport | 23 |
| 8 Chemicals | 25 |
| 9 Customer's environmental practices | 27 |
| 10 Purchasing of ecolabelled goods and services..... | 29 |
| 11 Environmental management | 30 |
| 12 Summary of points | 32 |
| 13 Changes compared to the previous version | 33 |

100 Coffee services, version 2.0, 01 February 2023

This is a translation of the Norwegian original. The original document takes precedence in the event of any discrepancies.

Addresses

In 1989, the Nordic Council of Ministers decided to introduce a voluntary official ecolabel, the Nordic Swan Ecolabel. These organisations/companies operate the Nordic Ecolabelling system on behalf of their own country's government. For more information, see the websites:

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Summary

The proposed criteria consist of 26 obligatory requirements and 4-point score requirements.

Coffee services that meet the Nordic Swan Ecolabel's strict environmental requirements have taken a holistic approach to their environmental work and are among the best in their sector in this regard. The product group covers all deliveries of coffee machines, raw materials, machine service, and maintenance.

The proposed requirements have been updated based on a dialogue with the industry, as well as an updated analysis of the relevance, potential, and steerability.

The most significant changes in the draft for consultation compared to generation 1:

- A change to the product group definition is proposed. In the past, the coffee service was able to offer a Nordic Swan Ecolabel service “line” in its range, where selected coffee machines and parts of the coffee supply had to meet the requirements. The entire service must now meet the requirements, i.e., the requirements are set for the coffee service, and thus all coffee machines and all raw materials must fulfil the requirements.
- Introduction of motivational point score requirements to increase flexibility. The business receives points for the purchase of organic coffee, tea, cocoa, sugar, and milk, the purchase of coffee grown in an agroforestry system, and the purchase of ecolabelled products and services.
- Opening requirement for information about the business.
- Change in the requirement for certified coffee, with proposals for 100% certified raw materials for beverages, where “certified” includes all certification schemes approved by Nordic Ecolabelling, such as Certified Organic, Rainforest Alliance, and Fairtrade.
- Energy requirement for new coffee machine purchases.
- Introduction of circular requirements with a focus on reusing coffee machines and their components.
- Updated requirement for transport relating to the coffee service.
- Updated chemical requirements.
- Requirement to prevent the use of disposable items.
- Introduction of environmental management requirement.

1 Environmental impact of the coffee service

The coffee service’s environmental impact is mainly linked to the coffee machines, coffee and other raw materials, transport, cleaning chemicals, disposable items, and other consumables.

In the criteria for coffee services, all significant environmental conditions in the life cycle are assessed. Nordic Ecolabelling has analysed relevance, potential, and steerability (RPS analysis). The purpose of the RPS analysis has been to clarify where the greatest environmental benefit can be achieved by setting requirements. The results of the analysis are shown in the table below, and they underpin Nordic Ecolabelling’s decisions on which areas to assign requirements for coffee services and the extent of these requirements.

Table 1 Summary of the RPS analysis for coffee services

| Overall priority | Area Assessment of RPS: High, Medium or Low | Comments |
|---|---|--|
| Raw materials | | |
| Coffee: High | Raw materials: Coffee R: High P: High S: Medium | The coffee used by the coffee service's customers has a high RPS. Coffee is an important value chain in the world's food system, but also an environmental problem and a victim of climate change. It is a climate-impacting raw material with regard to greenhouse gas emissions per kg produced and a raw material that requires a lot of land to grow. The coffee plant is sensitive to temperature, humidity, and heat, and due to climate change, farming is moving to new areas at higher and higher altitudes. Coffee is a leading cause of deforestation in the world. The RPS for coffee is assessed as high, and Nordic Ecolabelling therefore sets requirements in several areas. The potential for coffee grown responsibly and sustainably has been assessed as medium, since coffee services need large quantities of coffee and predictable deliveries. There are many stages, from purchasing to production, and strict requirements need to be set in order to maintain control over the value chain. Steerability is considered to be high, and Nordic Ecolabelling sets requirements to ensure that those who focus on responsible coffee production meet the requirements. |
| Coffee certified as socially responsible: High | Coffee certified as socially responsible: R: High P: High S: Medium | Coffee production has a significant environmental impact and is also linked to social challenges. The potential is also high here, as there are credible certification schemes linked to coffee production in terms of sustainable production, ecology, and social responsibility. The potential for certified coffee is high with regard to social responsibility. The potential for organic coffee is medium, as the supply of organic coffee is lower and its price is higher. Global challenges have led to a sharp increase in the price of coffee generally (up 20–55%), and the price gap between organic coffee and coffee certified as socially responsible has closed somewhat in this context. Steerability is considered to be medium, as the coffee service's customer makes the final decision on which coffee they want to buy. Nevertheless, the range of coffee services and pricing help determine the customer's choices. |
| Organically certified coffee: Medium | Organically certified coffee R: High P: Medium S: Medium | Although certification of coffee is positive and important, it should be noted that obtaining coffee certification can be expensive and resource-intensive. Certification may, therefore, not be an option for many coffee farmers, even though they operate organically and have good working conditions. As a consequence, “direct trade” with farmers, where traceability, responsible production, |

| | | |
|---|---|--|
| <p>Coffee Agroforestry: Medium to low</p> | <p>Coffee: Agroforestry: R: High P: Low S: Medium</p> | <p>fair pricing, and social conditions are taken into account without a certification scheme, is an increasing trend in the coffee industry. The farmer, in turn, avoids the cost of certification and documents conditions directly with the buyer. This is vital for many small-scale coffee farmers. Direct trade is, first and foremost, a feature of smaller coffee houses and roasteries that offer quality coffee, but it may also be relevant for coffee services in the future.</p> <p>A lack of knowledge about soil depletion in plantations is a challenge. Agroforestry involves planting trees and bushes in with traditional farmland. The planted trees nourish the soil, provide shade, retain moisture and prevent erosion. Relevance is high, and Nordic Ecolabelling wishes to reward those who buy coffee from producers who apply agroforestry principles. Due to the low supply of coffee from agroforestry, the potential is considered too low, but the total RPS is medium to low.</p> |
| <p>Medium to low</p> | <p>Raw materials: Tea, cocoa, sugar R: Medium P: Medium S: Low</p> | <p>The RPS for raw materials used in addition to coffee, such as tea, cocoa, and sugar, has been assessed as medium to low.</p> <p>The rating for potential corresponds to the assessment for coffee. However, deliveries in kg of these raw materials are only a fraction of the scale of the coffee deliveries for a coffee service, and the relevance is therefore judged to be medium. One reason for the low volumes supplied is that the coffee service's customers often want to buy consumables such as tea, sugar, and milk themselves, and steerability is therefore assessed as low.</p> |
| <p>Coffee machines</p> | | |
| <p>High</p> | <p>Coffee machine: Energy consumption in operating phase, new purchases R: High P: High S: Medium</p> | <p>There is a high RPS for the energy consumption of the coffee machines in the operating phase concerning newly purchased coffee machines.</p> <p>Using energy-efficient coffee machines reduces the environmental impact of the service, and so the relevance is judged to be high.</p> <p>The energy performance of new coffee machines is constantly improving.</p> <p>However, the amount of energy used by coffee machines varies greatly, depending on the type of coffee machine. Different coffee machines require different amounts of energy. For example, a coffee machine that grinds beans will require more energy than a coffee machine that filters coffee or uses freeze-dried coffee. A coffee machine with a larger water tank requires more energy than a coffee machine with a smaller water tank, and so on. Due to the availability of different options, the potential is considered high. However, steerability is considered to be medium for new purchases since the service will want to offer different sizes of machines, and the customer ultimately decides which coffee machine is chosen.</p> |
| <p>Medium</p> | <p>Coffee machine: Energy consumption in operating phase, existing machines R: High P: Low S: Low</p> | <p>For coffee machines that the service has already purchased, the RPS is judged to be medium.</p> <p>Using energy-efficient coffee machines reduces the environmental impact of the service, and so the relevance is assessed to be high. Potential and steerability are judged to be low, as the machines have already been purchased, and the environmental impact would be much greater if all the service's coffee machines were replaced. However, it is important to gain an overview of coffee machines with poor energy performance and offer customers more energy-efficient machines when the time comes to replace the coffee machine.</p> |
| <p>High</p> | <p>Coffee machine: Maintenance and repair R: High P: Medium - High S: Medium</p> | <p>There is a high RPS for the maintenance and repair of coffee machines.</p> <p>The relevance is high, as the production of coffee machines has a high environmental impact in terms of the materials used and their extraction, production, and transport. The potential is considered to be medium to high, and experience suggests that a well-maintained coffee machine will last longer. Good maintenance routines, regular servicing, and replacing components will prolong the life of a coffee machine.</p> |

| | | |
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| | | At the same time, a coffee machine in a large office space, which is in continuous operation every working day, will have a limited lifetime as, for example, a coffee grinder with grinder blades, hoses, and gaskets wears out more quickly. Steerability is therefore judged to be medium. |
| High | <p>Coffee machine: Reuse</p> <p>R: High P: High S: Medium</p> | <p>There is a high RPS for reusing and recycling of coffee machines and their components.</p> <p>Coffee machines that are in continuous operation wear out over time. There is high relevance and potential for reusing parts of the coffee machine that are still in working order. Steerability is judged to be medium since there are major variations as to whether coffee services have their own technicians and workshops where the job can be done or whether the coffee machines need to be sent to external companies that can deal with reusable parts.</p> |
| Low | <p>Coffee machine: Recycling</p> <p>R: High P: Low S: Medium</p> | <p>The coffee machines contain materials such as metals, plastics, and electronic components. Since the components can be disassembled and recycled, the relevance is considered high.</p> <p>National legislation ensures that the coffee services pass end-of-life coffee machines to companies that accept electronic waste. The potential is assessed as low.</p> <p>Steerability of the material recovery lies in the hands of the companies that receive the coffee machines. Nordic Ecolabelling can encourage a high proportion of material recovery by setting requirements that the machines must be designed to be disassembled.</p> |
| Medium or low | <p>Coffee machine: Coffee machine components in contact with food</p> <p>R: High P: Low S: Low</p> | <p>The relevance is judged to be high, as components in coffee machines that are in contact with food, such as water and coffee containers, hoses, and pipes, may contain substances that are harmful to health and the environment, such as flame retardants, plasticisers or lead in metal alloys.</p> <p>Coffee machines contain a number of metals, normally stainless steel and aluminium, as well as some small brass components. Brass components may contain lead.</p> <p>The potential is judged to be low as coffee machine manufacturers may have limited opportunities to influence the composition of the coffee machine since the components often come in from external suppliers. Steerability over components is assessed as low since these are a long way back in the chain from the coffee service itself. However, the regulatory requirements for components in contact with foodstuffs do not cover all materials, and Nordic Ecolabelling sets requirements regarding the purchase of new coffee machines.</p> |
| Low | <p>Coffee machine: Chemicals in production</p> <p>R: Low P: Low S: Low</p> | <p>There is little use of chemicals in the production of coffee machines.</p> <p>The coffee machines consist mainly of aluminium, stainless steel, and various types of plastic. Surface treatment is rare and is a very small part of the coffee service's overall environmental impact.</p> <p>Potential and steerability have also been assessed as low since this is not something over which the coffee service has any control.</p> |
| Transport | | |
| High | <p>The coffee service's own transport: Coffee machines, raw materials, servicing and maintenance</p> <p>R: High P: Low - High S: Low - High</p> | <p>The relevance of transporting coffee machines, raw materials, service, and maintenance has been assessed as high.</p> <p>The potential is judged to be medium, as transport is necessary for product deliveries to customers and on-site servicing. The environmental impact can be reduced by using vehicles in a high Euronorm class or powered by electricity, biogas, or hydrogen. Potential and steerability are low for vehicles already in the business but high when buying new vehicles.</p> <p>In addition, the environmental impact can be further reduced through economical driving and efficient planning of the transport involved in delivering coffee machines and raw materials, servicing, and maintenance. Logistics is an area over which the business itself has steerability.</p> |

| | | |
|---|--|--|
| | | The total RPS for the coffee service's own transport activities is therefore considered to be high. |
| Chemicals for cleaning the coffee machines | | |
| Low | <p>Chemicals: For cleaning the coffee machines</p> <p>R: Medium P: Low S: Low</p> | <p>The use of chemicals is relevant when cleaning the coffee machines.</p> <p>The chemicals used are usually two types: a cleaning product for coffee machines and a cleaning product for components in contact with milk and milk powder.</p> <p>Relevance has been assessed as medium. The coffee machines need to be cleaned as part of normal maintenance to ensure good-tasting coffee and prolong the life of the machine parts. The products used for cleaning components in contact with milk products must ensure effective cleaning to prevent bacterial growth. However, it is important that the chemicals used do not contain substances that: are harmful to health and the environment, are not readily degradable, or have any negative effect on the person cleaning the coffee machine.</p> <p>The potential has been assessed as low since there is no unnecessary or excessive use of chemicals. The products often come in tablet form or with good instructions concerning the dosage. Steerability is low, as the various coffee machine manufacturers recommend carefully selected products for their coffee machines, which customers need to use for the coffee machine's warranty to apply.</p> |
| Purchase of products and services | | |
| Medium | <p>Disposable items</p> <p>R: Low P: Medium S: High</p> | <p>The coffee services offer customers disposable items for use when serving coffee. Typical disposable items may be single-use coffee cups, lids, stirrers, and napkins.</p> <p>Large businesses don't always have dishwashing options, which makes them reliant on disposable cups, so we cannot steer them away from using disposables. Nevertheless, the potential and steerability are high because the supplier of the coffee service can offer products consisting of renewable raw materials.</p> <p>Disposable items account for a small proportion of the coffee service's overall environmental impact, and the relevance is low. Nevertheless, the total RPS has been judged as medium since ecolabelled coffee service must consider the environment at all points where the supplier has steerability.</p> |
| Medium | <p>Ecolabelled consumables</p> <p>R: Low P: Medium S: High</p> | <p>The use of consumables accounts for a small proportion of the coffee service's total environmental impact and, in practice, is only relevant for products used in the service's own offices.</p> <p>Nevertheless, the potential has been assessed as medium and steerability high since the service can easily replace consumables such as copier paper, tissue paper, soap, and cleaning products with ecolabelled alternatives.</p> <p>Products such as fixtures and fittings (furniture, textiles, and similar) have a long lifespan, and relevance, potential, and steerability are considered low.</p> |
| Medium | <p>Ecolabelled services</p> <p>R: Medium P: Medium S: Medium</p> | <p>The coffee service often uses other services in the operation of its own service. For example, the relevance of vehicle washing is high, as transport accounts for a large proportion of the service's environmental impact. Potential and steerability have been assessed as medium due to the varying availability of Nordic Swan Ecolabel vehicle wash installations in cities and districts, as well as significant differences across the Nordic region.</p> <p>Cleaning services are another example, but here the relevance is considered to be medium to low, as it is only a matter of cleaning the office premises. Nevertheless, potential and steerability are high, as ecolabelled cleaning services are readily available.</p> |

2 Justification of the requirements

The Nordic region ranks among the biggest consumers of coffee in the world. Much of the coffee consumed is brewed in coffee machines in workplaces, schools, restaurants, and hotels, and there is a culture of workplaces offering free coffee to employees. In recent years, Nordic consumers have become more conscious of the quality and taste of coffee, creating greater demand for employers to offer quality coffee to their employees. This has also had a knock-on effect on the quality of coffee machines as well as the suppliers of coffee services.

Workplaces that offer coffee to their employees in the office have shown a particular interest in ecolabelling their service. The market for workplace coffee services has grown steadily over the past ten years, with the exception of a downturn during the coronavirus pandemic.

Coffee – an environmental problem and a victim of climate change

Coffee is the second largest commodity traded worldwide after oil. 2.25 billion cups of coffee are consumed every day. While coffee is an important value chain in the food system, it is also an environmental problem and a victim of climate change.

Coffee is a climate-impacting raw material that ranks fifth on the list of the most climate-impacting raw materials in our food system per kg, after beef, chocolate, and lamb, among other things. Coffee is also no. 6 on the list of raw materials that require the most farmland.¹ In addition, coffee production is one of the leading (7–8) reasons for deforestation in the world.

The coffee plant is particularly sensitive to temperature, humidity, and heat, making it a victim of climate change, with cultivation having to be moved to new areas higher up in the mountains. Today, coffee is grown at altitudes of around 1,100 metres for optimum production, whereas ten years ago, it was grown at 8–900 metres, representing an increase of about 30 metres a year. Within a few decades, half of the areas where coffee is currently grown will no longer be suitable for production. For example, 90% of Brazil's coffee may be affected by climate change.

The production of coffee generates enormous amounts of waste, in addition to using a great deal of water, for sorting, washing, and processing. Approximately 4,000–5,000 coffee cherries are used for a kilo of roasted ground coffee², and all the pulp around the coffee bean is waste. In addition, 18 million tonnes of coffee grounds are generated worldwide, which become waste after coffee making. Often this organic waste is not put to any use.

Coffee has become more expensive

Raw coffee beans are traded in the commodities market, and any imbalance between supply and demand affects the price. Coffee is the second most traded commodity in the world after oil, and the players speculate on future price movements when investing. The price of coffee has been artificially low for many

¹ PLATFORM ON SUSTAINABLE FINANCE: TECHNICAL WORKING GROUP PART B – Annex: Technical Screening Criteria, March 2022

² Norsk Kaffeinformasjon, Kaffeplanten: <https://kaffe.no/kaffeplanten/>

years and has not covered the production costs for coffee farmers. This has had consequences for the coffee plantations, as there has been no opportunity to invest in operations (equipment, replanting, fertilisation, and expansion), which has led to lower productivity and reduced crop yields. The paradox now is that coffee farmers are being paid too little to cover production costs, even as the market price of coffee rises.³ A turbulent market has meant that producers and traders have waited to sell in anticipation of greater predictability. Plant diseases and climate challenges, such as extreme weather, droughts, floods, and storms widely experienced in the regions of South and Central America where coffee is grown, have affected global production and led to a significant decline. Lower supply and ever-increasing demand have led to a significant leap in coffee prices.⁴

3 Description of the service

01 Description of the business

Please provide the following information about your business:

- Describe the coffee service

Includes information about the customer segment, to whom the service is offered, and where the service is offered.

- Does your business offer services other than the coffee service? Yes/No
 - If yes, please list the other services offered by your business
- Link to website
- List the different coffee machines that the service offers

Espresso-based coffee machines, fresh brew coffee machines, filter coffee makers, manual espresso machines, or others?

- Do bulk brewers (urns) and manual espresso machines make up more than 30% of the coffee machines delivered by the coffee service? Yes/No
- How many coffee machines does the service hire out per year?

An approximate number based on the last 12 months or the last full year.

- Other relevant information you would like to share?

 Enter information.

Alternatively

 Upload documentation digitally in the Nordic Ecolabelling Portal.

Background

Nordic Ecolabelling requires a detailed description of the business to obtain an accurate picture of the service. The information provides the basis for correct advice in the application process.

³ The Coffee Collective: <https://coffeecollective.dk/stories/a-series-about-the-coffee-paradox-transparency-in-trading>

⁴ Norsk Kaffeinformasjon: <https://kaffe.no/hvorfor-har-kaffen-blitt-dyrere%ef%bf%bc/>

4 Raw materials: coffee, tea, cocoa, milk, and sugar

02 Requirements for certified coffee, tea, and cocoa

100% of all the coffee, tea, and cocoa offered by the business must be certified in accordance with a scheme that meets Nordic Ecolabelling's "renewable raw material requirement", see below.

The name of the product, manufacturer, supplier, and certification scheme must be stated for all raw materials that the business offers in the future.

- 📎 Download Nordic Ecolabelling's "Template for reporting certified raw materials", which can be used in this work.

Exceptions:

Direct trade: An exception to the requirement for certification may be made if the raw material is purchased through direct trade. Direct trade refers to raw materials purchased directly from the farmer/coffee farm, where the buyer must have a contract for long-term agreement for a minimum of 3 years, traceability of the coffee back to the farmer must be ensured, and the price paid must be a minimum of 25% above the standard Fairtrade price. Documentation of this must be submitted to Nordic Ecolabelling.

Approved certifications include the raw material labels from Rainforest Alliance, UTZ, Fairtrade, Smithsonian Bird Friendly, EU Regulation (EU) 2018/848, KRAV, Luomu, Nyckelpigan, Debio, tatskontrollert økologisk (Ø-mærket), Demeter and Tún-lífrænt.

Labelling under other standards can be used if Nordic Ecolabelling's "renewable raw material requirement" is met.

- 📎 Download Nordic Ecolabelling's appendix: "Requirement concerning standards for renewable raw materials".
- 🗒️ Are 100% of the raw materials, coffee, tea, and cocoa, the business offers certified? Yes/No
- 📎 Upload an overview of all raw materials purchased. The name of the product, manufacturer, supplier, and certification scheme must be stated. The "Template for reporting certified raw materials" can be used to document the requirement.
- 🔍 On-site inspection.
- 🗒️ Does the business buy raw materials through direct trade? Yes/No
If yes:
- 📎 Upload a contract showing a long-term agreement for a minimum of 3 years.
- 📎 Upload documentation/information showing compliance with the requirement.

Background

The requirement concerning certified raw materials is a collective requirement covering a range of certifications, and approves raw materials that are organically certified, sustainability certified, and certified through labelling schemes for social responsibility.

The cultivation and production of raw materials such as coffee, tea, and cocoa affect the environment and nature. For example, coffee is ranked as number 5 on the list of the most climate-impacting raw materials in our food system per kg, after steak, chocolate, and lamb, among other things. Coffee is also no. 6 on the list of raw materials that require the most farmland.⁵ In addition, coffee production is one of the leading (7–8) reasons for deforestation worldwide.⁶ Coffee is grown either in direct sunlight or by growing the coffee plant in the shade of other trees. Coffee grown in direct sunlight yields about three times more coffee than “shade-grown coffee”. The challenge is that coffee grown in direct sunlight is cultivated on coffee plantations established in areas that originally was rainforest. Rainforest losses lead to biodiversity loss, as well as a loss of moisture in the soil and negative impacts such as soil depletion.⁷

Sustainable production is therefore important if the production of these high-demand raw materials is to continue in the future. The coffee plant is particularly sensitive to temperature, humidity, and heat, making it a victim of climate change, with cultivation having to be moved to new areas higher up in the mountains.⁷ Today, coffee is grown at altitudes of around 1,100 metres for optimum production, whereas ten years ago, it was grown at 8–900 metres, representing an increase of about 30 metres a year. Within a few decades, half of the areas where coffee is currently grown will no longer be suitable for production. For example, 90% of Brazil’s coffee may be affected by climate change.

Achieving the UN Sustainable Development Goals requires a transition to more sustainable food and farming systems that maintain ecosystems, are better adapted to climate change, and improve soil quality.⁸ Third-party certification of raw materials is therefore important for documenting more sustainable production. There are several different certification schemes for raw materials such as coffee, tea, and cocoa, each of which focuses on one or more factors during the cultivation and production of the raw materials. Some impose a ban on synthetic pesticides and fertilisers, and/or have requirements concerning the introduction of sustainable agricultural practices, working conditions, procedures, monitoring, improvements, prices, and so on. Nordic Ecolabelling, therefore, sets the requirement that 100% of the raw materials must be certified.

Although coffee certification is a positive thing, not all coffee farmers are able to certify their coffee for economic reasons. Coffee is commonly grown in countries with widespread poverty, and payment for certification is not an option for everyone, despite the cultivation of the coffee meeting the requirements of a certification scheme. Often, a coffee farmer who cannot afford synthetic fertilisers will instead use their own fertiliser, such as chicken fertiliser, making production organic in principle, even though the coffee is not certified. Nordic Ecolabelling, therefore, wishes to set an exemption from the requirement concerning certification if the raw material is purchased through direct trade. Direct trade

⁵ PLATFORM ON SUSTAINABLE FINANCE: TECHNICAL WORKING GROUP PART B – Annex: Technical Screening Criteria, March 2022

⁶ Wedeux B, Schulmeister-Oldenhove A (2021): STEPPING UP? THE CONTINUING IMPACT OF EU CONSUMPTION ON NATURE WORLDWIDE

⁷ Amanda L. Varco, A Bitter Brew - Coffee Production, Deforestation, Soil Erosion and Water Contamination: <https://ohiostate.pressbooks.pub/sciencebites/chapter/a-bitter-brew-coffee-production-deforestation-soil-erosion-and-water-contamination/>

⁸ UN, ‘UN Sustainable Development Goals’ www.FN.no/Om-FN/FNs-baerekraftsmaal (07.12.2022)

involves purchasing raw materials directly from the farmer/coffee farm. The purchaser must have a contract for a long-term agreement of at least three years to ensure continuity for the coffee grower. Traceability of the coffee back to the farmer must also be ensured. The price paid should be a minimum of 25% above the standard Fairtrade price for the area in which the coffee is grown. The price paid for the coffee will reflect its sustainable production. Paying well for the coffee allows farmers to invest in their business with equipment, replanting, fertilising, and expansion. With plant diseases, and climate challenges such as the extreme weather, droughts, floods, and storms widely experienced in the regions of South and Central America where coffee is grown, the farmers need to be paid better to adapt to the effects of the climate change that they face.

Nordic Ecolabelling promotes organic labelling, as such labelling schemes prohibit synthetic pesticides and fertilisers, and organic farming practices increase biodiversity. Rainforest Alliance and Fairtrade standards are not as strict in their environmental requirements as the organic labelling schemes. However, since coffee is a special commodity in terms of production locations and climate and social challenges, we also support the Rainforest Alliance and Fairtrade certification schemes, which contribute positively to the improvement of the coffee industry in general via several important social and environmental requirements. We do not differentiate between these certification schemes in the same way as in Nordic Ecolabelling's other criteria. This only applies to the raw materials coffee, tea, and cocoa. Organic labelling refers to the labelling schemes that mainly drive production in the desired direction from an environmental perspective.

Nordic Ecolabelling will assess standards for raw materials when the licensee wishes to use them.

Coffee standards are the most widely studied of the sustainability standards we have. In a review where 75% of the scientific articles were about coffee, the effects of voluntary sustainability standards were measured using environmental, economic, and social sustainability indicators. The review concluded that “When grouped by case, the indicator results tend to be positive on average (51%), followed by no difference (41%) and negative (8%) outcomes. There are no significant differences among sustainability pillars regarding the average proportion of positive and negative results.” The effect was strongly dependent on context. Organic certification was underrepresented in the studies, while Rainforest Alliance, UTZ, and Fairtrade were well-represented. As the main subject in 75% of the studies, coffee was generally well-represented. Other summaries of the effect of certifications show that it is difficult to say what delivers the positive effect, the context, or the standard. It turns out that there is a better effect in areas where laws and regulations are enforced by the authorities.⁹

O3 Proportion of organic coffee

The business must state the percentage of organically certified coffee purchased per year, calculated per kg purchased.

⁹ Traldi R (2021) Ecological indicators: [Progress and pitfalls: A systematic review of the evidence for agricultural sustainability standards – ScienceDirect](#)

The calculation must be made with data from the last full year or the last 12 months of purchases, but as a minimum, data from three months' purchases can be used.

The "Template for reporting certified raw materials" may be used for this work.

* *Organic means raw materials labelled in accordance with Regulation (EU) 2018/848, KRAV, Luomu, Nyckelpigan, Debio, Statskontrollert økologisk (Ø-merket), Demeter or Tún-lífrænt.*

- ☞ State the percentage of organically certified coffee purchased per kg.
- 🏠 Upload documentation and a calculation showing last year's purchases of organically certified coffee calculated as a percentage. The "Template for reporting certified raw materials" can be used as documentation.

Background

Nordic Ecolabelling's approved labelling schemes include organic schemes. The aim of the requirement concerning disclosure and points for purchased raw materials is to encourage an increased proportion of organic raw material purchases.

Organic farming places emphasis on ecological balance, local eco cycles, and ecological, economic, and social sustainability over the long term.¹⁰ Organic methods increase biodiversity and thus help to maintain ecosystem services on which agriculture depends.^{11, 12, 13} Such methods also lead to higher numbers of active microorganisms in the soil¹⁴, which give better soil health and soil quality. Synthetic pesticides and fertilisers are not permitted because they have a negative impact on biodiversity and can leach into groundwater, rivers, and seas, thus affecting water quality.

P1 Points for organic coffee

The business is awarded points based on purchases of organically certified coffee per year, calculated per kg purchased. A maximum of 6 points can be achieved in this point score requirement.

- ≥ 10 – < 15%: 1 point
- ≥ 15 – < 20%: 2 points
- ≥ 20 – < 30%: 3 points
- ≥ 30 – < 40%: 4 points
- ≥ 40 – < 60%: 5 points
- ≥ 60%: 6 points

¹⁰ Arbenz M, Gould D, Stopes C (2016) Organic 3.0 – for truly sustainable farming and consumption, IFOAM Organics International, Bonn and SOAAN, Bonn.

www.ifoam.bio/sites/default/files/organic3.0_v.2_web_0.pdf

¹¹ Tuck SL, Winqvist C, Mota F, Ahnström J, Turnbull LA, Bengtsson J (2014) Land-use intensity and the effects of organic farming on biodiversity: a hierarchical meta-analysis. *Journal of Applied Ecology* 51:746-755. <https://doi.org/10.1111/1365-2664.12219>

¹² Rahmann G (2011) Biodiversity and Organic Farming: What do we know? *vTI Agriculture and Forestry Research* 3(61):189-208. Metaanalysis of 766 studies. www.fao.org/fileadmin/user_upload/sustainability/pdf/11_11_28_OA_biodiversity_Rahmann.pdf

¹³ Dainese M et al. (2019) A global synthesis reveals biodiversity-mediated benefits for crop production. *Science Advances* 5(10) eaax0121. <https://doi.org/10.1126/sciadv.aax0121>

¹⁴ Lori M, Symnaczyk S, Mäder P, De Deyn G, Gattinger A (2017) Organic farming enhances soil microbial abundance and activity – A meta-analysis and meta-regression. *PLoS ONE* 12(7):e0180442. <https://doi.org/10.1371/journal.pone.0180442>

- ☞ The points total is calculated based on of the requirement concerning the proportion of organically certified coffee.

P2 Points for organic tea, cocoa, sugar, and milk

The business is awarded points if 100% of purchased milk and milk powder, tea, cocoa, or sugar has organic certification.

Each category gives 1 point. A maximum of 3 points can be achieved for this point score requirement.

| Organic raw materials | Points | Confirmation |
|-----------------------|---------|--------------|
| Milk and milk powder | 1 point | Yes/No |
| Tea | 1 point | Yes/No |
| Cocoa | 1 point | Yes/No |
| Sugar | 1 point | Yes/No |

- ☞ Upload documentation showing that 100% of purchased milk and milk powder, tea, cocoa, or sugar is certified as organic. The “Template for reporting certified raw materials” can be used to document the requirement.

P3 Points for agroforestry

The business is awarded points if they buy from one or more coffee farms that employ agroforestry practices. Coffee certified as Smithsonian Bird Friendly meets the requirement. Buying from a coffee farm gives one point. A maximum of 2 points can be achieved for this point score requirement.

Agroforestry refers to agriculture that is combined with tree/forest planting and/or livestock farming, which has environmental and socio-economic benefits.

- ☞ Are purchases made from coffee farms that employ agroforestry practices?
Yes/No

If yes:

- ☞ How many? 1, 2, or more.

- ☞ Upload documentation showing Smithsonian Bird Friendly certification or documentation that the agroforestry requirement is met.

Background

Biodiversity is being lost at a rapid pace, posing just as much of an environmental threat as the climate crisis, according to the UN’s Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES).¹⁵ The reasons for the losses are land use change and loss of species habitats, overexploitation of resources, pollution, climate change, and invasive species.

Argoforesy is an example of management methods that promote biological diversity in the forest, the cultural landscape, and surrounding nature. Agroforestry is a system whereby agriculture is combined with tree/forest

¹⁵ IPBES (2019): Global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. E. S. Brondizio, J. Settele, S. Diaz, and H. T. Ngo (editors). IPBES secretariat, Bonn, Germany. 1148 pages. <https://doi.org/10.5281/zenodo.3831673>

planting and/or livestock. In tropical and temperate areas, this is an ancient practice with environmental and socio-economic benefits. These modes of operation contribute to the far-reaching change that IPBES calls for. The Nordic Swan Ecolabel award points to businesses that use products from production sources that take this into account.

Smithsonian Migratory Bird Center's Bird Friendly¹⁶ is the only prevalent coffee and cocoa certification where agroforestry is mandatory. The coffee must also be 100% certified organic and is mainly sold in North America.¹⁷

Some third-party sustainability standards recommend agroforestry and contain prescriptions and guidelines on how to do it, although agroforestry is not mandatory. This includes Rainforest Alliance certification¹⁸ for coffee, tea, cocoa, herbs, spices, flowers, etc., and FairTrade coffee, cocoa, coconut, sugar, tea, wine, flowers, fresh produce, etc. The PEFC forest certification in 2018 included "Trees outside Forests", i.e., trees on agricultural land, in its criteria. The FSC certification also gives the possibility to certify agroforests. Organic coffee, to some extent, can be expected to be grown in agroforestry because synthetic pesticides and fertilizers are forbidden. However, there are no requirements for the type or coverage of trees. Although many coffees are labelled "shade-grown", this is neither a certification nor a regulated designation.

Nordic Ecolabelling further promotes organically certified coffee by rewarding coffee with Smithsonian Bird Friendly certification.

5 Coffee machines

04 Overview of the energy efficiency of the coffee machines

The business is to establish an overview of the energy efficiency of all the coffee machines. The name, model, type of machine, manufacturer, and energy loss or energy consumption must be stated for each machine.

The energy efficiency of the coffee machines may be stated as

- Energy loss in kWh per day in line with DIN 18873–2:2016–02,
- or
- Energy consumption in Wh/L with associated energy class according to the European Vending Association Energy Measurement Protocol (EVA EMP) version 3.1 B.

Bulk brewers and manual espresso machines are exempted from the requirement.

📄 Download Nordic Ecolabelling's "Template for reporting the energy efficiency of the coffee machines", which can be used in this work.

¹⁶ <https://nationalzoo.si.edu/migratory-birds/bird-friendly> (2022-11-18)

¹⁷ <https://nationalzoo.si.edu/migratory-birds/bird-friendly-farm-criteria> (2022-12-07)

¹⁸ Rainforest Alliance and UTZ merged in 2018 and published the revised Sustainable Agriculture Standard in 2020. Currently, products certified by the two old standards and the new standard are all certified as Rainforest Alliance, and there is a transition period during which the old standards are being phased out.

- 🏠 Upload an overview of the coffee machines offered by the service. The “Template for reporting the energy efficiency of the coffee machines” can be used to document the requirement.

Background

Drawing up an overview of the coffee machines’ energy efficiency makes it possible to rank the machines from good to less good. This can then be used to make informed choices when the coffee service purchases new coffee machines. Coffee machines with poor energy performance should be prioritised and phased out when the time comes for replacement.

05 Requirements for new coffee machine purchases

Energy requirement

Nordic Ecolabelling will update the “Energy requirement for new coffee machine purchases” as soon as the new testing standard for “Professional and commercial coffee machines” has been published and there is sufficient data to base limit values. The new standard is currently under development and is expected to be ready in 2024. Requirements under the new standard will replace our existing requirements, which refer to DIN 18873-2:2016-02 and the European Vending Association Energy Measurement Protocol version 3.1 B.

The business must have procedures in place to ensure that newly purchased coffee machines fulfil the requirements “Option A” for commercial coffee machines or “Option B” for vending/dispensing machines.

Option A:

| Type of coffee machine | Energy loss, kWh |
|--|------------------|
| Coffee machine without fresh milk | 1.5 |
| Coffee machine with fresh milk, < 100 cups per day | 1.5 |
| Coffee machine with fresh milk, 100–250 cups per day | 1.9 |
| Coffee machine with fresh milk, > 250 cups per day | 2.7 |

Energy losses should be tested in accordance with DIN 18873-2:2016-02.

Or

Option B:

- A++ energy rating, corresponding to energy consumption < 100 Wh/l, or
- A+ energy rating, corresponding to energy consumption < 140 Wh/l

The machines should be tested according to the European Vending Association Energy Measurement Protocol (EVA EMP) version 3.1 B or later sub-versions. Testing must be carried out by either an independent test institute or the manufacturer itself, provided that the manufacturer has a quality management system that includes sampling and analyses and is certified in accordance with ISO 9001 or ISO 9002.

Switching to energy-efficient coffee machines

When purchasing new and replacing old coffee machines, the business must have procedures in place to ensure that coffee machines with low energy efficiency are phased out and replaced.

This applies to coffee machines with:

- Energy losses exceeding 2.7 kWh/day according to DIN 18873–2:2016-02.

Or

- Energy consumption higher than 190 Wh/l (lower than energy class A) according to the European Vending Association Energy Measurement Protocol (EVA EMP) version 3.1 B.

Bulk brewers and manual espresso machines are exempted from the requirement.

Design for disassembly

When purchasing new coffee machines, the business must have procedures to ensure that newly purchased machines are designed for disassembly.

In this context, designing for disassembly means that the coffee machine can easily be maintained and repaired and that the materials can be separated out for reuse and material recovery. It must be possible to replace parts subject to wear, and it must be possible to replace broken parts as far as possible.

🔑 Does the business confirm fulfilment of the requirement regarding new coffee machine purchases? Yes/No

📁 Upload a procedure describing how the business ensures that newly purchased coffee machines meet the energy requirement, the requirement to switch to energy-efficient coffee machines, and the requirement concerning designing for disassembly.

👤 On-site inspection.

Background

Energy consumption: Energy consumption during the use phase constitutes a major environmental impact on the life cycle of the coffee machine. By setting requirements for maximum energy loss or energy consumption in new purchases, the business ensures that it offers its customers energy-efficient coffee machines, thus reducing their environmental impact. The applicable criteria refer to DIN 18873-2:2016-02 and the European Vending Association Energy Measurement Protocol (EVA EMP) version 3.1 B.

DIN standard DIN 18873-2 “Methods for measuring the energy use from equipment of commercial kitchens Part 2: Commercial coffee machines” is a testing standard designed to test energy consumption expressed in energy losses from fully-automated coffee machines for public use, as well as the refrigeration system for milk. The company HKI is the German industry organisation for household, heating, and kitchen equipment¹⁹, which includes commercial and

¹⁹ <https://www.grosskuechen.cert.hki-online.de/de/home> (06.12.2022)

private kitchen equipment. HKI has a database, HKI Cert, listing the energy performance of kitchen appliances, including coffee machines²⁰.

EVA EMP is a voluntary testing protocol for measuring all types of vending machines for both chilling fresh food and serving hot beverages. The European Vending Association (EVA) is the European trade association for vending machine providers. EVA EMP has an associated calculation module with a calculation sheet that the coffee machine manufacturer can use to assign its machines an energy class on a scale that ranges from G to A++. This energy scale is an unofficial scale from EVA and should not be confused with the EU's official energy label scheme for appliances. The energy scale makes it possible to compare the energy efficiency of coffee machines. However, this is a calculation that can be made by the manufacturer, not by an independent third party. Nordic Ecolabelling, therefore, requires the testing to be carried out by either an independent testing institute or the manufacturer itself, provided that the manufacturer has a quality management system that includes sampling and analyses and is certified in accordance with ISO 9001 or ISO 9002.

A new EU standard for measuring the energy consumption of professional and commercial coffee machines is under development, with the work being carried out by the CLC/TC 59X/WG 21²¹sub-committee. Nordic Ecolabelling will update the requirements concerning energy consumption once the new standard has been published and there is sufficient data on which to base limit values for new purchases. The new standard will include “manual espresso machines”, which in turn will mean that Nordic Ecolabelling will also be able to set requirements for these types of coffee machines in the future. Until a new standard is in place, there are requirements for maximum energy loss or energy consumption when purchasing coffee machines with reference to DIN and EVA EMP.

Switching to energy-efficient coffee machines

Coffee machines with poor energy performance should be prioritised first when the time comes for replacement. The business must have procedures in place to ensure that coffee machines with high energy losses or energy consumption are phased out. This ensures that the coffee service offers its customers energy-efficient coffee machines over the long term.

Design for disassembly:

Through a requirement concerning designing for disassembly, the business ensures that the machines it purchases can easily be maintained and repaired, and that the materials can be separated out for reuse and material recovery. Replacement of parts subject to wear will ensure that the lifetime of the machine is optimised and extended.

O6 Requirement for coffee machine components in contact with food

The proposed requirement applies to existing coffee machines and new purchases. During the consultation period, we would like feedback on whether it is viable to

²⁰ <https://www.grosskuechen.cert.hki-online.de/en/geraete/typen-liste/geraete-nach-typ-liste?typ=Heissgetraenkebereiter> (06.12.2022)

²¹ CLC/TC 59X - CONSUMER INFORMATION RELATED TO HOUSEHOLD ELECTRICAL APPLIANCES: <https://standards.iteh.ai/catalog/tc/clc/e24c2497-a610-4985-a49a-8ac601a787b4/clc-tc-59x> (06.12.2022)

set requirements in this way. For example, can manufacturers document this for coffee machines that the service already has in its range? Alternatively, should the requirement only be set for purchases of new coffee machines?

The business must ensure that the following substances are not present in the components of coffee machines in contact with food:

- Substances on the Candidate List: <http://echa.europa.eu/sv/candidate-list-table>
- The phthalates di-n-octylphthalate/DNOP (CAS:117-84-0) and diisooheptylphthalate/DIHP (CAS:41451-28-9).
- Halogenated organic compounds.
- Antibacterial substances (including silver ions, nanosilver, and nanocopper).
- Tin, cadmium, chromium VI, and mercury, or compounds of these.
- Flame retardants classified with the following hazard codes: H350, H350i, H340, H360F, H360D, H360Fd, H360Df.
- Endocrine disruptors: Substances on the “Endocrine Disruptor Lists”, List I and List III.

List I: <https://edlists.org/the-ed-lists/list-i-substances-identified-asendocrine-disruptors-by-the-eu>

List III: <https://edlists.org/the-ed-lists/list-iii-substances-identified-asendocrine-disruptors-by-participating-national-authorities>

Ingoing substances: all substances in the product, including additives in the raw materials. Substances known to be released from ingoing substances (e.g., formaldehyde, arylamine, preservatives) are also regarded as ingoing substances.

Impurities are exempted from the requirement. This means residues from production, including raw material production, which are present in the finished product at concentrations ≤ 100 ppm ($\leq 0.1\%$ by weight, ≤ 100 mg/kg). Examples of impurities are reagent residue, including residues of monomers, catalysts, by-products, cleaning agents for production equipment, etc.

- 🏠 Upload confirmation from the coffee machine manufacturer that the coffee machine components in contact with food comply with the requirement.
- 🏠 The “Template for reporting information on coffee machines”, which can be downloaded under the requirement for “Information about coffee machines”, can be used in this work.
- 🏠 Upload the procedure for new coffee machine purchases, which ensures compliance with the requirement.

Background

Nordic Ecolabelling wishes to avoid instances where Nordic Swan Ecolabel services offer products containing substances that are harmful to health and the environment. In this product group, it is relevant to set requirements that chemical substances with problematic properties must not be included in the coffee machine’s components that come into contact with food.

The requirement applies to all coffee machines included in the Nordic Swan Ecolabel coffee service, including bulk brewers and traditional espresso machines. The requirement applies to all components in the coffee machine that are in contact with food, e.g., containers for coffee beans/coffee, grinding

discs/mills, water tanks, pipes, hoses, and any couplings in the machine through which the water or coffee flows. A coffee machine must comply with Regulation 1935/2004 on materials in contact with food. Material-specific regulations for a coffee machine are only available for plastic (10/2011/EU). A corresponding European regulation for metals and alloys, or rubber in contact with food, does not yet exist. Metals and alloys are used in materials in coffee machines that come into contact with food and are, therefore, a possible source of contamination for the drink produced. Migration of substances must not occur in quantities that jeopardise human health.

All substances in the product are counted as ingoing substances, unless otherwise stated, including additives (e.g., preservatives and stabilisers) in the raw materials, but not impurities deriving from production, including raw material production. Impurities are residues from production, including raw materials production, which may be found in the finished product at concentrations below 100 ppm (0.0100% by weight, 100 mg/kg), but not substances that have been added to a raw material or product actively and for a particular purpose, irrespective of quantity. Raw material impurities accounting for more than 1.0% of the raw material are considered ingoing substances. Products/substances known to be released from ingoing substances are also regarded as ingoing substances. A declaration of ingoing substances is issued by the producer based on the knowledge available at that specific time, using information from raw material producers/suppliers, formulations, and available knowledge of the chemical product. This is subject to new developments and new knowledge. Should such new knowledge arise, the signatory is obliged to submit an updated declaration to Nordic Ecolabelling.

Antibacterial substances may contain nanomaterials. This is not permitted.

Nanomaterials/-particles are defined according to the EU Commission Recommendation on the Definition of Nanomaterial (2022/C 229/01): 'Nanomaterial' means a natural, incidental or manufactured material consisting of solid particles that are present, either on their own or as identifiable constituent particles in aggregates or agglomerates, and where 50 % or more of these particles in the number-based size distribution fulfil at least one of the following conditions:

- (a) one or more external dimensions of the particle are in the size range 1 nm to 100 nm;
- (b) the particle has an elongated shape, such as a rod, fibre or tube, where two external dimensions are smaller than 1 nm and the other dimension is larger than 100 nm;
- (c) the particle has a plate-like shape, where one external dimension is smaller than 1 nm and the other dimensions are larger than 100 nm.

07 Coffee machine water quality

The proposed requirement applies to existing coffee machines and new purchases. During the consultation period, we would like feedback on whether it is viable to set requirements in this way. For example, can manufacturers document this for coffee machines that the service already has in its range? Alternatively, should the requirement only be set for purchases of new coffee machines?

The coffee machines should not supply more than 0.005 mg lead/kg water. The difference is measured between incoming and outgoing water from the coffee machines in line with standard EN 16889.

The business must have procedures in place to ensure compliance with the requirement when purchasing new coffee machines.

The risk of lead in water is applicable to coffee machines with brass or other components containing lead that are in contact with incoming and outgoing water.

- ☞ Upload documentation from the coffee machine manufacturer demonstrating fulfilment of the requirement. For example, documentation/test report from the coffee machine manufacturer or documentation that the coffee machine does not contain brass or other lead-containing components.
- ☞ Upload the procedure for new coffee machine purchases, which ensures compliance with the requirement.

Background

The requirement applies to all coffee machines included in the Nordic Swan Ecolabel coffee service with lead-containing components in contact with foodstuffs. The requirement also applies to bulk brewers and traditional espresso machines.

Consumers are exposed to lead through food, water, air, soil, and dust. The main source of exposure is via food. Lead accumulates in the body, primarily in the skeleton, and affects the nervous system. Lead is also toxic to aquatic and soil organisms. Even small quantities of lead are harmful to health. Drinking water always contains a background concentration of lead.

A coffee machine may have brass components, for example, in the connections with the water main. Lead is added to brass to increase its cuttability and resistance to corrosion. These alloys may contain various levels of lead, ranging from 0.8% to 3.5%^{22, 23}. Work is currently underway, for example, in the valves and fittings industry, to develop lead-free brass alternatives. Under suboptimal conditions, there is a risk of lead migrating into stationary water in contact with brass components.

Where the coffee machine has lead-containing components in contact with foodstuffs, to minimise the risk of an unacceptably high concentration of lead in the output water from the machine, there is a requirement that the machine must not release into the water more than 0.005 mg lead/kg water (5 micrograms/kg water). The WHO's recommended limit for lead in drinking water is 10 micrograms/kg water. This limit value is considered suitable both for consumption under the European Drinking Water Directive (DWD, 98/83/EC) and as a recommended specific migration limit for lead in contact with foodstuffs in accordance with the European Directorate for the Quality of Medicines & HealthCare of the Council of Europe (EDQM).

Compliance with the limit value is to be ensured by testing the coffee machine to the European standard EN 16889 – “Food hygiene – Production and dispense of

²² Mikael Hansson, forsknings- & utvecklingschef, Ostnor (2015-02-19)

²³ Copper Development Association Inc., Leaded Brasses (2015-02-19)

http://www.copper.org/resources/properties/microstructure/lead_brasses.html

hot beverages from hot beverage appliances – Hygiene requirements, migration test”, which is the most relevant standard for testing newly manufactured machines.

6 Reuse

08 Reuse of machine parts

When purchasing coffee machines, the business must have procedures in place to ensure that serviceable machine parts are recovered for reuse.

☞ Does the business confirm that procedures are in place for machine parts to be recovered for reuse? Yes/No

☞ Describe how the requirement is fulfilled.

Alternatively

☞ Upload the procedure(s) for the reuse of machine parts.

09 Reuse of coffee machines

The business must have procedures in place for the reuse of used coffee machines.

The procedures ensure that used coffee machines are offered to customers as long as the machines are in good condition, and there is potential for sale/rental. The same service agreement must be offered for the selection of newly purchased coffee machines, and there must not be a maximum limit to the number of times a coffee machine can be reused.

☞ Does the business confirm that it has procedures for reusing coffee machines that comply with the requirement? Yes/No

☞ Describe how the requirement is fulfilled.

Alternatively

☞ Upload procedures for reusing coffee machines.

010 Marketing of reused coffee machines

The business must have clear marketing in place for the range of reused coffee machines.

☞ Link to the website that shows clear marketing in accordance with the requirement.

Alternatively

☞ Description of how the requirement is fulfilled.

Background

Nordic Ecolabelling wishes to promote reuse. From a circular perspective, it is important that the coffee machines are designed in a way that facilitates the reuse and replacement of parts and sorting of the various components at the end of life for recycling.

To optimise the lifetime of the coffee machines, it is important that the machines are repaired and that parts can be replaced. A longer service life has direct positive effects on the environmental impact and protects society from exposure to adverse environmental conditions related to producing new coffee machines. Machines that can no longer be used for various reasons can be disassembled and the parts reused.

A rental agreement for a coffee machine can often extend over several years. Once the rental agreement has expired, customers may want to change the coffee machine, even if the machine still works. Ensuring opportunities to reuse these used machines will help reduce the environmental impact. These are machines that can still be offered to customers, preferably at a reduced price compared to new machines. Therefore, Nordic Ecolabelling requires that the reuse of machines be communicated to customers so that they can actively make sustainable choices when it comes to reusing coffee machines.

7 Transport

O11 Information on the business's vehicles

Overview of all vehicles with registration numbers, Euronorm, and information on fuels, e.g., electricity, biogas, hydrogen, petrol, diesel, or hybrid.

📄 Download Nordic Ecolabelling's "Template for reporting on the business's vehicles", which can be used in this work.

📄 Upload an overview covering all vehicles, with information according to the requirement.

Background

Drawing up a vehicle overview tells the business what fuel types are being used, making it possible to rank the vehicles from good to less good. Vehicles that meet older Euronorm standards should be phased out when the time comes to replace them and switch to new ones.

O12 New vehicle purchases

The business must have procedures in place to ensure that newly purchased and leased vehicles are either powered by electricity, biogas, or hydrogen or meet the latest applicable Euronorm at the time of purchase.

The requirement concerns the applicant's own and leased vehicles driven in the provision of the service, e.g., for customer visits, servicing, and deliveries of raw materials.

New vehicles will always comply with the currently applicable Euronorm. As of 2023, the latest Euronorm is Euro 6. Euro 7 is expected to be introduced in 2025.

The Euronorm/Euroclass system does not cover electric vehicles.

🗋️ Does the business confirm that newly purchased and leased vehicles meet the requirement? Yes/No

📄 Upload the procedure which ensures that newly purchased and leased vehicles are either powered by electricity, biogas, or hydrogen or meet the latest applicable Euronorm/Euroclass standard.

Background

Nordic Ecolabelling sets requirements concerning new purchases and leasing of vehicles. Requiring that newly purchased or leased vehicles either comply with the latest applicable Euronorm/Euroclass standard or run on electricity, biogas, or hydrogen ensures that the business applies relevant environmental criteria to its vehicle acquisitions. Euronorm/Euroclass is a European classification system that specifies the highest permitted emissions of a wide range of air pollutants for cars, goods vehicles, and buses. This, together with requirements for training in environmentally adapted driving, will reduce in the business's environmental impact from transport.

The uptake of electric vehicles is showing a rapid growth in the areas of cars and light commercial vehicles. Heavy goods vehicles are not as easy to electrify and currently require other solutions. The charging options for electric vehicles are good in central areas but challenging in some districts and parts of the Nordic region. This is why we do not set a 100% requirement for electrically powered vehicles.

O13 Transport optimisation

The business must have procedures in place to optimise transport, aiming to reduce the number of kilometres driven.

As a minimum, the procedures must include a description of how the business optimises its routes by providing good servicing planning and customer follow-up.

📁 Upload procedures for optimising transport.

Background

Transport optimisation and good route planning make transport more resource-efficient. As the distance travelled is optimised, the number of vehicles used can be reduced, the number of stops per trip increases, and the load factor increases. Routine optimization can be planned in advance for businesses with a large proportion of fixed routes. On the other hand, businesses with varying routes need to run the optimisation over the course of the day.

Businesses with a digital planning system can save a great deal by using this to optimise transport and plan routes.

O14 Training in environmentally adapted and economical driving

All employees who use the business's vehicles must undergo training in environmentally adapted and economical driving (Eco-driving).

The training must take place no later than two months after licensing.

New employees must receive training within three months.

The theory behind environmentally adapted and economical driving should then be repeated annually.

Training in environmentally adapted and economical driving (Eco-driving) can be carried out as a course via authorised driving schools or their equivalent. Alternatively, internal training may be carried out via a course for employees.

Environmentally adapted and economical driving is part of basic driver training in Sweden, and all Swedish businesses, therefore, meet the training requirement.

The applicable annual review and orientation requirements nevertheless remain relevant.

- ☞ Have all employees who use the business's vehicles undergone training in environmentally adapted and economical driving? Yes/No
- ☞ Does the business confirm that new employees receive training in environmentally adapted and economical driving within three months? Yes/No
- ☞ Does the business confirm that all employees annually repeat the theory behind environmentally adapted and economical driving? Yes/No
- ☞ Description of what training employees receive and how the training is carried out.

Alternatively

- ☞ Upload procedures, checklists, or the like that verify employee training.

Background

“Eco-driving” is a term used to describe environmentally adapted and economical driving. Training in environmentally adapted and economical driving will result in reduced fuel consumption and carbon emissions, and a focus on greater road safety. Experience indicates that average fuel savings of 16–20%²⁴ can be achieved, which leads to a smaller climate footprint and reduced costs. Courses are often based on a combination of theory and practical driving. Nordic Ecolabelling, therefore, requires the business's employees to receive training and to repeat the theory for environmentally adapted and economical driving annually.

8 Chemicals

O15 Information on chemicals

Overview of all the chemicals expected to be used to clean the coffee service's coffee machines. Enter the name, supplier, and cleaning function of the chemicals.

- ☞ Download Nordic Ecolabelling's “Template for reporting chemicals”, which can be used in this work.
- ☞ Upload an overview of all the chemicals to be used. Enter the name, supplier, and cleaning function. The “Template for reporting chemicals” can be used.

Background

Nordic Ecolabelling requires a total overview of all the chemicals used to clean the coffee service's coffee machines. The chemicals' name, supplier, and cleaning function must be stated. All the chemicals used must meet the classification requirement.

²⁴ NAF, HMS i trafikken: <https://www.naf.no/tjenester/trafikksikkerhet-for-bedrifter/trafikksikkerhet/hms-i-trafikken/>

O16 Safety data sheets and user information

Safety data sheets (in line with Annex II to REACH, Regulation (EC) 1907/2006) and user information must be available for the customers of the coffee service, either electronically or on paper.

- ☞ Does your company confirm that Safety data sheets and user information is available for all customers? Yes/No

Background

The safety of the employees who will be using the chemicals must be taken seriously, which is why there is a requirement that safety data sheets and user information must be available to the coffee service's customers. User information refers to how the product is to be used and any possible care that must be taken during use – for example, whether gloves or other protective equipment must be worn when using the product.

O17 Classification of cleaning products for coffee machines

None of the cleaning products used for cleaning coffee machines may be classified in any of the hazard categories in the table below.

Prohibited classifications for other chemicals

| CLP Regulation 1272/2008 | | |
|--|--|--|
| Hazard statement | Hazard category | Hazard code |
| Hazardous to the aquatic environment | Acute category 1 Chronic categories 1-4 | H400, H410, H411, H412, H413 |
| Acute toxicity | Categories 1-4 | H300, H310, H330, H301, H311, H331, H302, H312, H332 |
| Specific target organ toxicity - single exposure/repeated exposure | STOT SE categories 1-2 | H370, H371, H372, H373 |
| Aspiration hazard | Category 1 | H304 |
| Sensitisation on inhalation or skin contact | Category 1/1A/1B | H334, H317, or labelled with EUH 208: "Contains (name of the sensitising substance) May cause an allergic reaction". |
| Carcinogenic | Category 1A/1B/2 | H350, H351 |
| Germ cell mutagenicity | Category 1A/1B/2 | H340, H341 |
| Reproductive toxicity | Category 1A/1B/2/Lact. | H360, H361, H362 |

Note that responsibility for correct classification lies with the manufacturer.

- ☞ Please upload safety data sheets in accordance with current European legislation (Annex II to REACH Regulation, 1907/2006/EC) for all relevant chemicals used.

Background

All chemicals that the coffee service offers its customers for cleaning coffee machines must meet the requirement concerning hazard classification. The requirement has been set based on Nordic Ecolabelling's objective to reduce

ecotoxic substances in the aquatic environment and to safeguard the working environment of those using the products.

9 Customer's environmental practices

O18 Energy-saving function

The energy-saving function should be activated on all the coffee machines installed.

- 🔗 Does the business confirm that the energy-saving function is activated when installed at all customers? Yes/No

Background

Automated coffee machines often come with an energy-saving function. This function must be activated when installing the coffee machine, as it does not switch on by itself. Nordic Ecolabelling, therefore, requires Nordic Swan Ecolabel coffee services to ensure that the energy-saving function is activated on installation.

O19 Customer instructions

There must be clear customer instructions in written or digital form, which describe what the customer is responsible for:

- Cleaning and maintenance
 - Description
 - Frequency
 - Which cleaning products to use
- Refilling the machine
- Waste management

- 🔗 Does the business confirm that there are clear customer instructions in accordance with the requirement above? Yes/No

- 📁 Upload an example of the customer instructions showing that the requirement is fulfilled.

Alternatively

- 🔗 Link to an example of digital customer instructions.

Background

For the coffee machine to function well, it must be regularly maintained and serviced by on-site personnel who have received clear instructions on how to carry out this work. A poorly maintained coffee machine can have higher energy consumption and produce coffee and drinks that do not taste good. If the coffee machine is not cleaned regularly, there may be hygiene issues as the machine handles food. The customer must therefore be provided with written instructions on cleaning/servicing the coffee machine.

O20 Waste management

The business should encourage the recycling of the coffee service's delivered products and packaging by informing its customers about proper waste management.

As a minimum, communication on waste management should include the following information:

- Coffee grounds should be sorted as organic waste and sent for biological treatment.
- Packaging materials, such as plastic and cardboard, should be sorted at source.
- Disposable items should be sorted at source as indicated on the items.
- Sorting at source should be encouraged if the business does not have an already established system.

☞ Are customers encouraged to properly dispose of the coffee service's delivered products and packaging in accordance with the requirement? Yes/No

☞ Describe how the requirement is fulfilled.

Background

Nordic Ecolabelling wishes to encourage the correct sorting of the waste fractions generated to ensure the highest possible degree of recycling. The coffee service is in a position to inform and influence its customers on the proper disposal of the waste generated from the products delivered. Coffee production generates enormous amounts of waste. Approximately 4,000–5,000 coffee cherries are used for a kilo of roasted ground coffee²⁵, and all the pulp around the coffee bean is waste. This is not something the service itself can prevent. On the other hand, the service can encourage correct handling of the waste that occurs at the customer's premises and make a positive contribution by encouraging recycling in the final section of the waste cycle over which the customer has steerability.

There are differences in the Nordic region concerning how waste is sorted, which fractions are recycled, and whether food waste is sent for biological treatment. Procedures may also differ between municipalities/districts within the same country. From 2023, for example, the Norwegian authorities will require food and plastic waste to be sorted and processed.²⁶

It is a prerequisite that the municipal waste systems allow for recycling via sorting at source. If they do not, the coffee service does not have steerability over the customer's waste management. Nevertheless, it is worth encouraging sorting at source if the business does not have an established system.

O21 Disposable items

The business is to prevent unnecessary use of disposables by informing the customer of alternatives. Such information should:

- Promote the use of reusable cups and prevent unnecessary use of disposable cups
- Prevent unnecessary use of disposable cup lids

²⁵ Norsk Kaffeinformasjon, Kaffeplanten: <https://kaffe.no/kaffeplanten/>

²⁶ <https://www.miljodirektoratet.no/aktuelt/fagmeldinger/2022/juni-2022/nye-krav-til-kjeldesortering-og-materialgjenvinning/> (12.12.2022)

- 🔗 Does the business confirm that information on the prevention and unnecessary use of disposables is provided to the customer?
- 📁 Upload information showing compliance with the requirement.

Background

The requirement aims to reduce the unnecessary consumption of disposable items that are only used for a few minutes. Nordic Ecolabelling believes this represents an unnecessary use of resources and that disposable cups can easily be replaced with reusable alternatives such as ceramic cups in workplaces, hotels, etc. However, it is understood that some companies do not have the option of washing cups. There is, therefore, no prohibition on the sale of disposable items. However, there is a requirement for the coffee service to inform the customer about options to prevent unnecessary use of disposables.

10 Purchasing of ecolabelled goods and services

P4 Points for purchasing ecolabelled products and services

The business receives points for purchasing ecolabelled products and services relevant to the coffee service. 100% of each category must be ecolabelled to obtain points at this requirement unless otherwise specified. A maximum of 3 points can be achieved in this requirement.

In this instance, ecolabelled means products with the Nordic Swan Ecolabel or the EU Ecolabel.

Are the business's purchases of products or services covered by the ecolabel listed below?

| Ecolabelled products and services | Points | Confirmation |
|---|--------------------------|--------------|
| Nordic Swan Ecolabel vehicle wash installation for 50% of the business's vehicles | 2 points | Yes/No |
| Nordic Swan Ecolabelled fuel for 50% of the business's vehicles | 1 point | Yes/No |
| Ecolabelled disposable cups sold by the business | 1 point | Yes/No |
| Ecolabelled workwear | 1 point | Yes/No |
| Ecolabelled office furniture, one category | 1 point (max 1 category) | Yes/No |

- 📁 Upload relevant documentation showing the purchase, supplier, and licence number.
- 👤 On-site inspection.

Background

Ecolabelled products and services meet rigorous environmental requirements and have taken a holistic approach to their environmental work. This means that they are among the best in their category or industry in terms of the environment. Nordic Ecolabelling, therefore, rewards the use of ecolabelled goods and services that are relevant to the coffee service. 100% of the total purchase of the product or service in question must be ecolabelled to be eligible for points

unless otherwise specified. For example, points are awarded if 100% of all disposable cups sold by the business are ecolabelled, if the service uses Nordic Swan Ecolabel vehicle wash installations for 50% of its vehicles, and if 100% of one category of furniture, such as office chairs, is ecolabelled.

11 Environmental management

O22 Responsible person

The business must appoint one person who has the main responsibility for the application process, the annual follow-up of the licence, and who ensures fulfilment of the Nordic Ecolabelling requirements during the validity period of the licence.

The business must inform Nordic Ecolabelling if the responsible person is changed.

☞ Provide the following information on the responsible person: name, email, and job title.

Background

A responsible person is required to ensure that Nordic Ecolabelling's requirements are fulfilled throughout the entire validity period of the licence and that the annual follow-up and reporting are completed. The business may comprise several departments but should, in the first instance, appoint just one person to be responsible for the licence and contact with Nordic Ecolabelling. The business may internally split responsibility between different departments and several people.

O23 Communication with staff

All employees who participate in the day-to-day operation of the business must complete basic training on the environmental work of the business.

The training should include, as a minimum:

- Information on what holding the Nordic Swan Ecolabel means for the business
- Communication about the environmental work, which can be used in dialogue with customers
- Coffee's environmental impact
- What the employees can and must do to help with the environmental work

Training must take place no later than two months after obtaining the Nordic Swan Ecolabel licence. After that, all employees must annually repeat/update their basic training. New employees must receive the necessary training within two months.

☞ Download Nordic Ecolabelling's training material, which can be used for these training purposes.

☞ Upload the business's basic training, or a description of how employees are trained, in accordance with the requirement.

☞ Does the business confirm that employees receive training two months after licensing? Yes/No

- ☞ Does the business confirm that new employees receive training within two months? Yes/No
- ☞ Does the business confirm that employees annually repeat/update their basic training? Yes/No
- 🔗 On-site inspection.

Background

Knowledge of the business's environmental work and what it means to hold the Nordic Swan Ecolabel is important in giving employees a shared understanding of their environmental work. With proper training, employees will be able to use information about the business's environmental work in their communication, which can be a major competitive advantage in dialogue with potential and existing customers.

O24 Annual follow-up

The business must ensure that Nordic Ecolabelling's requirements are fulfilled throughout the licence period. In the event of changes and new purchases, the business must submit and update information about the following:

- Certified raw materials
- Coffee machines
- Vehicles

The business will review and document information annually in accordance with the requirement. The follow-up from Nordic Ecolabelling may involve a review of either all information or only selected elements. Information about any follow-up and deadline for reporting is provided in advance.

- ☞ Does the business confirm that an annual review of the licence is carried out? Yes/No

Background

The business must ensure that the requirements set out in the criteria are fulfilled at all times during the validity period of the licence. An internal follow-up and reporting to Nordic Ecolabelling must be conducted once a year. Nordic Ecolabelling may conduct a review of either all the information reported or only selected elements. A decision on this is made year by year. Information is provided on the checks and the deadline for submission of information well in advance of an annual follow-up. Information about the annual follow-up is usually given before the end of the year, with a deadline in the spring of the following year.

The purpose of the annual follow-up is to ensure compliance with the requirements at all times. It is always the latest version of reported data that forms the basis for fulfilling the licence. If the annual report reveals deviations or changes that result in no longer meeting the requirements, this must be reported to Nordic Ecolabelling. We will then jointly try to find a solution.

O25 Complaints

The licensee must guarantee that the quality of the service is maintained throughout the licence period. The licensee must therefore keep an archive of customer complaints.

🏠 Upload the business's procedure for handling and archiving complaints.

Background

Nordic Ecolabelling requires the business to have a system for handling complaints. To document this, the procedure for complaints handling must be submitted. The procedure must be dated and signed and will normally be part of the business's quality management system. If the business does not have a procedure for handling complaints, it is possible to submit a description of how the business handles this matter. Nordic Ecolabelling checks, on-site, that complaints handling is implemented in the business as described. The complaints archive will also be checked during the visit.

12 Summary of points

O26 Obligatory requirement concerning points achieved

The coffee service must achieve a minimum of 4 points.

Calculation of points

| Point score requirement | Number of points scored | Maximum no. of points |
|--|-------------------------|-----------------------|
| P1 Points for organic coffee | | 6 points |
| P2 Points for organic tea, cocoa, sugar, and milk | | 3 points |
| P3 Points for agroforestry | | 2 points |
| P4 Points for purchasing ecolabelled products and services | | 3 points |
| Total | | 14 points |

🏠 Summary of points calculation.

13 Changes compared to the previous version

Main changes

Based on the updated RPS, the main changes proposed in the draft for consultation are as follows:

- Change to the product group definition; the entire service must meet the requirements.
- Opening requirement for information about the business.
- Introduction to the section on “environmental management”.
- Proposal for 100% certified raw materials for beverages, where “certified” includes all certification schemes approved by Nordic Ecolabelling.
- Introduction of motivational point score requirement for the purchase of organic coffee, tea, cocoa, sugar, and milk.
- Introduction of motivational point score requirement for coffee grown in agroforestry.
- Adapted energy requirement to ensure that the entire service can carry the Nordic Swan Ecolabel, including strict limit values for new purchases.
- Introduction of circular requirement with a focus on reuse.
- Updated requirement for transport, inspired by the criteria for cleaning services and e-commerce logistics.
- Updated chemical requirement.
- Requirement aimed at preventing the use of disposable items.
- Introduction of motivational point score requirement for the purchase of ecolabelled products and services.