About Nordic Ecolabelled

Grocery stores



Version 3.0

Background to ecolabelling
04 January 2016
Draft for consultation

Nordic Ecolabelling

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This document is a translation of an original in Norwegian. In case of dispute, the original document should be taken as authoritative.

Addresses

In 1989, the Nordic Council of Ministers decided to introduce a voluntary official ecolabel, the Nordic 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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1 Summary

Grocery stores that have a broad range of products in several product groups, and where groceries account for more than 50% of sales (based on turnover), can apply for the Nordic Ecolabel. The grocery store may be a single store, part of a larger chain or an internet store. Wholesalers may also apply for a Nordic Ecolabel. Kiosks, wine merchants, pharmacies, suppliers of food boxes and health food stores, however, cannot be Nordic Ecolabelled.

In version 3, we are opening the Nordic Ecolabel up to whole retail chains. The set requirements are the same as for individual stores, but they are generally at an aggregated level for the whole chain. To be able to apply as a chain, the following conditions must be met. The stores in question must have:

- a shared concept/name/brand that, in its marketing, differentiates itself from other kinds of store partnership
- a partnership on purchasing
- a joint agreement on compliance with the requirements of the Nordic Ecolabel
- joint registration of data relevant to the criteria

In version 3 of the criteria, Nordic Ecolabelling has focused on setting requirements in the most relevant areas of store operation. This means that, compared with previous versions, it is clear which parts of operating a store are important from an environmental perspective. Three areas have been highlighted as the key areas for setting requirements: product range, energy use and waste.

With regard to the product range, Nordic Ecolabelling sets requirements concerning organic food and drinks as a proportion of sales, and ecolabelled consumables as a proportion of sales. In addition, stores that choose not to sell fish and shellfish from unsustainable fisheries are rewarded.

A Nordic Ecolabelled grocery store has low energy consumption. In version 3, there are no requirements regarding energy consumption other than that the store must fall within a set limit value. Nordic Ecolabelling considers this limit value to have enough of a steering effect on the store's energy consumption.

Measures that reduce food waste have been included in version 3 of the criteria. Discarding food has major environmental implications. At the same time, it is also economically unviable. We are seeing an increased focus on food waste at every stage of the product chain, and several initiatives have been set up across national borders to identify food waste and to reduce the food waste that occurs. In addition, the quantity of general waste is not as relevant as before: The more waste the stores sort and recycle, the lower the amount of general waste.

Since a Nordic Ecolabelled store must "practice what it preaches", there are also requirements that the store must use ecolabelled consumables and services.

To ensure that a Nordic Ecolabelled store meets the ecolabelling requirements for the whole period of the licence, they must report annually to Nordic Ecolabelling.

2 Basic facts about the criteria

2.1 Products that can be labelled

Grocery stores that have a broad range of products in several product groups, and where groceries account for more than 50% of sales (based on turnover), can apply for the Nordic Ecolabel. In this context, groceries are defined as goods that are expected to be consumed or used within a limited period. Foodstuffs, sanitary products, household articles and cleaning agents are examples of goods that count as groceries. See also the section Terms and Definitions at the end of the document for a more detailed explanation of what types of products are covered by the definition. The grocery store may be a single store, part of a larger chain or an internet store. Wholesalers may also apply for a Nordic Ecolabel. However, kiosks, wine merchants, pharmacies, suppliers of food boxes and health food stores, for example, cannot be Nordic Ecolabelled. Such operations differ greatly from a grocery store, and the requirements in this document are tailored specifically to grocery stores. Requirements concerning areas such as product range and energy consumption have, from experience, not proven transferable to other types of sales.

In version 3, we are opening the Nordic Ecolabel up to whole retail chains. The set requirements are the same as for individual stores, but they are generally at an aggregated level for the whole chain. To take account of the fact that units within a chain may occasionally be bought and sold, there is a requirement that at least 90% of a chain's stores are included in the licence. A chain of stores must comprise at least 5 stores. Only the stores that are included in the chain licence may call themselves a Nordic Ecolabelled store. To be able to apply as a chain, the following conditions must be met. The stores in question must have:

- a shared concept/name/brand that, in its marketing, differentiates itself from any other kinds of store partnership
- a partnership on purchasing
- a joint agreement on compliance with the requirements of the Nordic Ecolabel
- joint registration of data relevant to the criteria

It must be possible for a chain to convey to its customers the fact that it is Nordic Ecolabelled in an easily understandable way, without danger of confusion as to what the licence covers. Without a shared concept/name/brand, there is thus limited market value in a chain licence. The stores that are included in an application for a chain license must, in addition, differ from any other parts of a store partnership. Here is an example to illustrate the point about a shared concept/name/brand:

The retail chain Good Food comprises stores with different concepts. The smallest stores with the narrowest product range are called Good Food Local. Stores with a slightly broader range are called Good Food Everyday, while the largest stores are part of the Good Food Gourmet concept. The stores within the Good Food Everyday concept in the area around Copenhagen often have joint promotional campaigns. This means they can apply for the Nordic Ecolabel for this group of stores. If it had instead been the case that Good Food Everyday never marketed the Copenhagen branches without the stores in the rest of Sjælland as well, there would be no point in only applying for the Nordic Ecolabel for the stores in the Copenhagen area. Similarly, there would be no

point in the stores in the Good Food Everyday concept applying for the Nordic Ecolabel, if these stores were never promoted without the other concepts in the Good Food group.

A partnership on purchasing is fundamental in being able to document the product range requirements. The two final points on the list above are included to establish that the chain has systems to ensure its compliance with the requirements of the Nordic Ecolabelling throughout the validity period of the licence.

Internet stores that have built up their distribution system across several warehouses must apply as a chain. This applies regardless of how many units the internet store operates.

Many retail chains are now launching their own internet stores. The goods are picked in one of the chain's stores, making it difficult to differentiate between what is a traditional store and what is an internet store. It can also be difficult for the store's customers to differentiate between the two parts of the business. Nordic Ecolabelling therefore sets a requirement whereby businesses that are a combination of traditional store and internet store must apply for the Nordic Ecolabel for all parts of the business, if they are marketed as a single unit. Internet stores that use subcontractors for the warehousing and picking of goods may apply for their own Nordic Ecolabel, if the subcontractor is Nordic Ecolabelled.

2.2 Marketing retail chains and internet stores

A single store that meet the Nordic Ecolabelling critera and has a licence can communicate this in the store, on its homepage and in other relevant channels. It is important that the information clearly states that it is the store that is ecolabelled and not the retail chain the store is a part of. The store's status as Nordic Ecolabelled must be evident at the store's entrance - for example on the door.

A retail chain can be Nordic Ecolabelled if at least 90 % of the retail chains stores meet the requirement and are a part of the licence. A Nordic Ecolabelled retail chain can use the Nordic Ecolabel in its general marketing, but cannot claim that all of the chain's stores are Nordic Ecolabelled unless all the stores are a part of the licence. On the retail chains homepage it must be clearly stated which stores that are included in the licence. All stores that are a part of a retail chain licence can market themselves as Nordic Ecolabelled.

Information about the store's or the retail chains' licence number must be accessible to customers - for example on the stores homepage. In all other forms of marketing, it is sufficient to use the logo of the Nordic Ecolabel - no reference to the licence number is necessary.

Nordic Ecolabelled internet stores must clearly specify which units/distribution points/regions that is part of the licence.

2.3 Justification for Nordic Ecolabelling

For Nordic Ecolabelling to develop criteria for a product or service, it is crucial that:

1. there is an environmental problem associated with the product or service in question (R)
2. there are differences in the industry that make it possible to differentiate the best players from the worst in environmental terms (P)
3. the conditions are in place for the Nordic Ecolabel to be a good tool in guiding consumers (S)

Below is an assessment of these three conditions for grocery stores. Nordic Ecolabelling calls this an RPS analysis. R stands for relevance, P for potential and S for steerability.

For Nordic Ecolabelling, it is important to set requirements for the parts of the operation where the environmental problems are greatest. It is also important that the requirements do not simply shift an environmental problem from the operation of the store over to the wholesaler or consumer, for example.

Relevance

A grocery store sells food, drinks and other consumables. Some grocery stores also sell durable products such as office machinery, paints and furniture. Over their lifetime, all these goods have a negative impact on the environment. At the same time, there are environmental problems associated with the actual operation of the store.

In terms of the store's product range, studies show that the production, processing, distribution, sale, use and disposal of food are among the human activities that have the greatest negative impact on the environment. The impacts come in the form of greenhouse gas emissions, environmental toxins, land use, water consumption and threats to biodiversity[1]. The grocery stores are only one of several links in the chain from producer to consumer. However, the stores can have a major influence on the choices that consumers make. Consumables and durable products are also associated with considerable environmental impact. In this context, cleaning products and sanitary products are particularly associated with chemical problems. Batteries and lightbulbs, however, also have negative consequences for the environment.

As already mentioned, the actual operation of the stores has negative effects on the environment; the stores consume energy and water, food waste and other waste is generated, and goods are transported to the stores and on to customers. In addition, the stores themselves consume goods and services such as cleaning products, kitchen paper and office stationery.

Potential

Food is a fundamental human need. However, as consumers we can think about the environment when choosing what we buy. Some food has a greater environmental impact than others. Red meat, for example, generates substantially greater emissions of greenhouse gases for its nutritional content than fish or poultry does. Organic food is produced without the use of biocides and artificial fertiliser.

[1] European Commission: "Environmental Impact of Products (EIPRO), Analysis of the life cycle environmental impacts related to the final consumption of the EU-25", Joint Research Center, 2006

Consumables and durable products can, in many cases, be ecolabelled and thus guide consumers towards the best products from an environmental perspective. Nordic Ecolabelling has, for example, developed requirements for Nordic Ecolabelled grease-proof paper, cleaning products and tissue paper.

Stores are able to influence their customers both in their choice of food and drinks, and in their choice of consumables and durable products. However, the way the stores run their premises, handle their waste and manage their orders, and the products they themselves consume are also critical for their overall environmental impact. In this context there are major differences in the industry, in Nordic Ecolabelling's experience. This means that there is potential for the Nordic Ecolabel to be a tool for guiding consumers.

Steerability

Many consumers choose their grocery store based on location. They buy their food in the store nearest to home or the one that fits in best with their daily schedule. Where there are long gaps between grocery stores, Nordic Ecolabelling probably has little steerability over the customer's choice of store. Urban areas, however, offer greater steerability. In the bigger cities, the grocery stores are close together, and consumers can choose their store based on their own priorities. These priorities may include the product range at the stores, service or their environmental profile.

Internet stores are a growing trend across large parts of the Nordic region. Such shopping currently only accounts for a small proportion of overall grocery shopping here, but in the UK it has grown to 5% in recent years[2]. Bearing in mind the levels of internet access and smartphone ownership, along with general positivity towards technology amongst the Nordic population, it is easy to imagine strong growth in sales for internet stores in years to come. In a report on future trends in the grocery sector, auditing and consultancy firm EY predicts that the market for internet sales is set to increase rapidly over a short period in the Nordics[3]. And for internet stores the Nordic Ecolabel can exert strong steerability over customers' choice of store. The websites of the internet stores offer good opportunities for the marketing of the Nordic Ecolabel. At the same time, the store's location no longer plays a significant role, so the customer is able to focus more on other priorities.

Relevance, Potential and Steerability – summary

In summary, we can conclude that there is high relevance and high potential for the Nordic Ecolabelling of grocery stores. When it comes to steerability, this depends on what real options customers feel they have for choosing stores. If they are able to choose between several stores as a matter of course, steerability will be good. For internet stores, Nordic Ecolabelling wants to be a good tool in guiding customers towards the best stores in environmental terms. The report on future trends in the grocery sector also predicts a move towards consumers expecting more social responsibility from the stores that they choose to shop with.

[2] Dagens næringsliv: http://www.dn.no/nyheter/naringsliv/2014/06/19/Handel/spr-nettkonkurser, 28 Feb 2015
[3] Dagens næringsliv: http://www.dn.no/nyheter/naringsliv/2015/02/26/2150/Handel/spr-milliardjafs-for-nettmat, 28 Feb 2015

2.4 Prioritising environmental areas for grocery stores

The operation of a store has a number of impacts on the environment. In developing its requirements, Nordic Ecolabelling has considered the scope for setting requirements in the following eight areas:

- Product range
- Energy
- Waste and food waste
- Transport
- The store's use of goods and services
- Packaging
- Water
- Environmental management

Nordic Ecolabelling sets requirements concerning the parts of the operation that cause an environmental problem (relevance), where we see possibilities for environmental improvements (potential) and where we see that Nordic Ecolabelling can make a difference by setting requirements (steerability).

Table 1 below shows which areas are considered important for setting requirements in and what priority they have been given. An explanation of the choice is presented below the table in the form of a description of the relevance (R), potential (P) and steerability (S). Environmental management is not included in the table since it is considered vital to ensure compliance with the requirements set by Nordic Ecolabelling throughout the validity period of the licence.

Table 1: Priority areas in which Nordic Ecolabelling has chosen to set requirements

Overall priority	**Theme**	**Assessment**
High	Product range	High R High P Medium S
	Waste and food waste	High R High P Medium S
	Energy	High R High P Medium S
Medium	Consumables and purchased services	Low R Medium P High S
Low	Transport	Inward transport: Medium R Medium P Low S Outward transport by customer: High R Medium P

		Low S Outward transport by store: Medium R Medium P High S
	Water	Medium R Low P Low S
	Packaging	Traditional grocery store: Low R Medium P Low S Internet store: Low R Medium P Medium S

Product range

The environmental consequences of a store's product range may be associated with energy, impact on biodiversity, chemicals and transport. Since the grocery sector is so large and food forms a large part of a person's overall environmental impact, **the relevance is high**.

Organic production is free from biocides and is better for preserving biodiversity. The Nordic Ecolabel, the EU Ecolabel, Bra Miljöval, GOTS and TCO are guaranteed to limit the negative environmental impact of non-food products. Increasing sales of organic and ecolabelled products will therefore help to reduce the stores' impact on the environment. **The potential is therefore high**.

Although the stores do not directly steer their customers' choice of products, they are considered to have good opportunities to influence customers at the moment of purchase. **Steerability is therefore considered to be medium.**

Waste and food waste

The waste that arises in stores primarily comprises product packaging such as cardboard and plastic, damaged consumables (rejects) and food waste. Food waste has the greatest impact on the environment – **which makes for high relevance.**

A Norwegian survey of food waste by ForMat shows that Norwegian stores can have as much as 7% food waste in relation to sales, although the average lies more around 3.5%[4]. **There is therefore high potential for improvement at many stores.**

Food waste occurs in part because stores order more than they sell, they feel they must have large quantities on display to drive sales, they have an unnecessarily large range of products and they receive oversized packs from their wholesalers. Some of these causes are within the control of the stores. Others offer less steerability for the stores. **Overall, steerability is judged to be medium.**

[4] Hanssen, O., J., Schakenda, V.: "Nyttbart matsvinn i Norge 2011. Analyser av status og utvikling i matsvinn i Norge. Rapport fra ForMat-prosjektet", ForMat, 2011

Energy

The stores use a great deal of energy, not least to chill and freeze goods and to ventilate the premises. **It has proven highly relevant to set energy requirements.**

Nordic Ecolabelling's experience with stores and energy shows that there are major differences across the industry. Some stores are highly conscious of their consumption and have taken action to reduce it. Others have greater potential for improvement. **Overall, the potential for energy savings is judged to be medium.**

A variety of parameters are used to determine the level of a store's energy consumption. The key parameters are the need for chilling and freezing, the floor area of the store and the optimum function of the store's technical installations. Examples of measures to reduce energy consumption include having a cover over chillers and freezers and demand-controlled use of heat from chillers and freezes. Since these measures are associated with relatively high costs, **steerability is judged to be medium.** Some measures may also be outside the control of the stores, since they themselves do not own or manage their premises.

Consumables and purchased services

Items and services that a store might buy in include cleaning services, printed material, toilet paper, office paper and batteries. Since the stores' consumption is only small in comparison with the products they themselves sell, **the relevance is relatively low.**

However, ecolabelled alternatives are available in most of the product groups in question. This means there is potential for improvement, while also giving the store an opportunity to stand out as "a good example". **The potential is therefore high.**

The store's steerability over choice of products and services is good.

Transport

Transport can be divided up into transport of goods from wholesaler to store, and transport of goods from the store home to the customer.

When it comes to transport of goods to the store, **the relevance ranges from high to low** depending on the mode of transport used. Inward transport becomes less important when compared with the store's other energy consumption and not least outward transport by the customers themselves. The relevance is high for transport from the store home to the customer. Most of the goods are transported by customers themselves and most of these drive their own car. An enormous number of kilometres are driven per store. For home delivery of goods to customers, the relevance is medium. Since one van delivers to several households, the environmental impact is less than when each individual customer drives their own car.

The potential for improvement is medium for both inward and outward transport. Some trucks have lower emissions than others. There are also trucks that run on renewable fuels. The same is true for customers' cars and for the store's own vans for home deliveries. The latter is particularly relevant for internet stores that run a home delivery service.

Steerability is, however, extremely limited for almost all transport. In Nordic Ecolabelling's experience, the stores have little scope to influence the transport of goods

from wholesalers. The customer's own choice of transport is also not something the store can control. Steerability is, however, good for the store's own vans.

Water

Stores use water for a number of purposes, including cleaning equipment and premises and preparing food. Toilets and staff showers also consume water. The quantity of water can, however, be seen as small compared with other industries. **The relevance of setting water requirements has therefore been set at medium.**

The potential, on the other hand, is low. Good hygiene is vital in a grocery store. This depends on the store using sufficient water to clean the premises and to meet the hygiene needs of employees.

Steerability is also considered to be low. The stores must meet applicable requirements concerning food safety and hygiene and they are not in a position to implement measures to reduce water consumption unless at the cost of current regulations.

Packaging

Most goods in the store have some form of packaging. Packaging is used to ensure that the products are not damaged in transit or during storage. Packaging also makes transport of the goods easier. With food products, the packaging helps the products to last longer[5].

Packaging usually takes the form of cardboard or plastic. And there is clearly an environmental problem associated with packaging. Since packaging is often used to protect goods, it is, however, not easy to say whether the packaging in itself is good or bad. This is particularly the case for foods such as fruit and vegetables. Compared with a store's other impacts on the environment, **the relevance must be considered limited. The potential to reduce the environmental impact associated with packaging is high for some products and low for others.**

A distinction can be drawn between primary and secondary packaging. Primary packaging is the packaging that comes into direct contact with the product itself. Secondary packaging is used where necessary for more practical transport and storage of the goods. An example of primary packaging is the plastic bottle for a shampoo. The secondary packaging is the cardboard tray that the shampoo bottles are placed in to make them easier to transport. Carrier bags are also a form of secondary packaging.

The stores have limited steerability over the primary packaging for the goods in their product range. The same is largely true of the secondary packaging used by the producers and wholesalers. Customers' choice of transport packaging is also not something the store can control to any great extent. **It is only in the home delivery of goods for customers that the store has steerability over the packaging of the goods.**

Based on the RPS analysis above, Nordic Ecolabelling has chosen to set requirements in the areas of product range, energy, general waste and food waste, and purchased consumables and services. However, no requirements are set for water consumption, transport or packaging.

[5] Aftenposten: http://www.aftenposten.no/viten/Emballasjen-minskar-matsvinn-7432221.html

Chapter 4 details the requirements for stores as set by Nordic Ecolabelling in version 3 of the criteria. There is also a separate subsection on areas in which requirements have not been set. Changes to the requirements from version 2 to version 3 are listed in chapter 5.

2.5 Criteria version and validity

Version 1 of the criteria for grocery stores was adopted on 15 June 2003. A revision resulted in version 2.0 being adopted on 21 June 2010. The biggest changes between these two versions were the introduction of an absolute requirement for energy and differentiated requirements between countries concerning product range, tailored to the availability of organic and ecolabelled products.

This document is the proposed background document for version 3.0, which is expected to be adopted in June 2016. There is a one year overlap between the versions, such that version 2.0 will remain valid for one year afterwards. Changes from version 2 to version 3 are detailed in chapter 5. As the proposal stands at this time, the main focus is on adapting the criteria to retail chains and internet stores, and on removing requirements that bring little environmental benefit. Requirements concerning food waste have also been added.

2.6 The Nordic market

A common feature of all the Nordic countries is that the market is dominated by a small number of large chains with a great deal of power. Figure 1 shows the market share of the major Nordic chains and independent stores in 2013. Iceland is not included in the overview. The roughly 17,450 stores in the Nordic region had sales of DKK 584 billion at that time. A total of 25.5 million people live in the Nordic countries of Sweden, Denmark, Finland and Norway.

All the Nordic countries are seeing a trend towards fewer, but larger, stores. There is tough competition in the industry, with small margins.

Online shopping currently only accounts for a small portion of the market, but many of the major chains are now expanding their business to also include sales of products online. New players that only sell goods online have also entered the market.

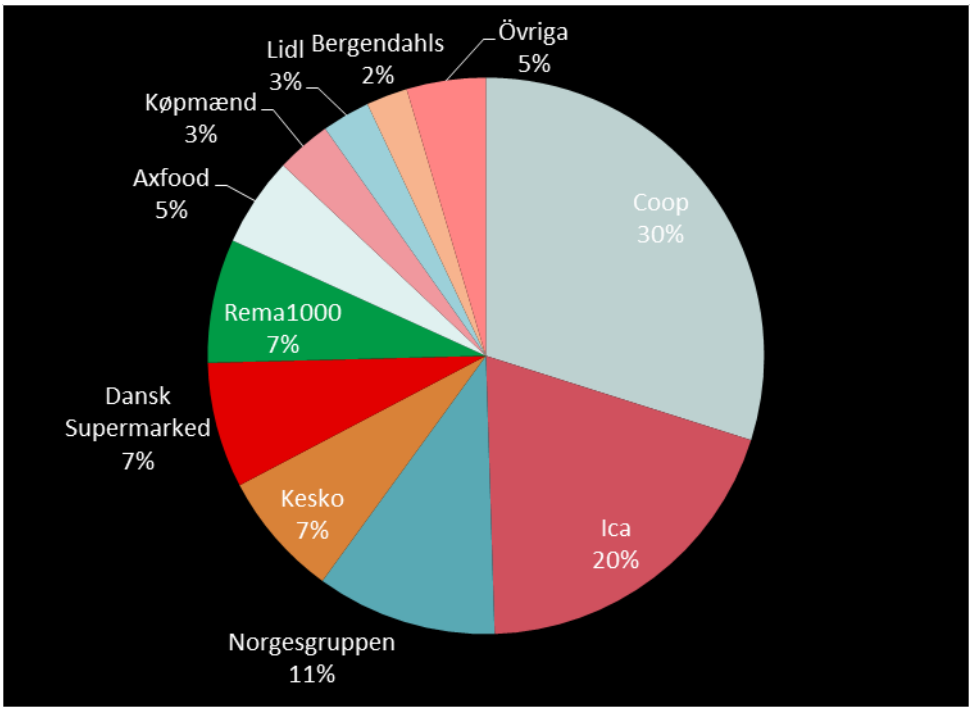

Figure 1: The Nordic grocery sector in 2013[6]

Below is a description of the market in the Nordic countries. All the data is taken from a survey of the Nordic grocery market in 2014, conducted by ICA Nyheter[7].

Sweden

ICA dominates the Swedish grocery sector, with 50% of the market. The ICA stores are divided up into the brands ICA Nära, ICA Supermarket, ICA Kvantum and ICA Maxi. All the Maxi stores are Nordic Ecolabelled. ICA is organised such that each store has its own owner.

Number two in the Swedish grocery sector is Coop. This chain has a little over 20% of the market. Coop is owned by its members, and is divided up into several different concepts, depending on the size of the stores. Coop Sweden has lost market share in recent years.

The third biggest player in the Swedish market is Axfood, with 17%. Its stores are split into Hemköp, Willys, Handlar'n and Tempo. All the Willys stores carry the Bra Miljöval label.

A fourth payer in the Swedish market is Bergendahls. They are growing strongly and most of their City Gross stores are Nordic Ecolabelled. Other brands under the Bergendahls umbrella are Matöppet and Matrebellerna.

Finland

The economic downturn has hit the Finnish grocery sector hard. In 2014, the volume of sales was down 1.2%. With sales also down in 2013, the Finnish grocery sector is now in

[6] Dansk Handelsblad: "Dagligvaremarkedet i tal, 2013"
[7] ICA Nyheter: "Dagligvaruhandeln i Norden 2015"

such a tough situation that one has to go all the way back to the early 1990s to find similar circumstances. The two biggest players in the market are S-gruppen and Kesko, with 45% and 33% of the market respectively. The biggest winner in recent years is, however, Lidl, which is the only player to have seen growth since 2013. They now have around 7.6% of the market. Suomen Lähikauppa follows close behind with 6.8%.

Denmark

The Danish grocery sector is dominated by Coop and Dansk Supermarked. Coop has 38% of the market and has long had a focus on a good range of organic and locally produced foodstuffs. With its 460 stores, Dansk Supermarked has around 32% of the market. Both Coop and Dansk Supermarked have remained stable in terms of market share over recent years. Denmark's third largest grocery company is Dagrofa with 14% of the market, while Reitan Distribusjon is continuing to capture market share with its REMA 1000 stores. Lidl also appears to be doing well in the highly price-sensitive Danish market. They currently have 2.5% of the market.

Norway

The Norwegian grocery market is dominated by three names: Norgesgruppen, Rema 1000 and Coop. Up until 2014, ICA was also an important player in the Norwegian market, but due to figures in the red over many years, the chain pulled out of Norway and the stores were largely bought up by Coop. In total, Norgegruppen had around 40% of the market in 2014. The corresponding figures for REMA 1000 and Coop were 24% and 22% respectively. The Coop Extra chain has Nordic Ecolabelled most of its stores. In addition to the three biggest players, Bunnpris had a market share of 3.4% in 2014.

Nordic Ecolabel licences

The criteria for the Nordic Ecolabelling of grocery stores have achieved relatively good penetration of the Nordic market. The table below shows the number of licences by country.

Table 2: Overview of Nordic Ecolabelled stores in the Nordic region

Country	No. of licences	Comment
Denmark	15	Kiwi, Superbrugsen, Netto and Irma
Finland	0	
Iceland	0	
Norway	31	Most of these licences are for Coop Extras. However, there are also Nordic Ecolabelled stores within the Coop Obs! and Coop Mega brands
Sweden	193	Several chains have licences, but most are associated with the chains ICA and City Gross
The Nordic countries	239	

2.7 Other labels

There are several labelling schemes available to grocery stores that wish to market their business in terms of environmental credentials. Below is a description of the main schemes in addition to Nordic Ecolabelling:

Bra Miljöval:

The Swedish Society for Nature Conservation's ecolabel Bra Miljöval (Good Environmental Choice) issued new criteria for grocery stores in 2013[8]. These set requirements concerning energy, product range, waste, transport, consumables and environmental management. The requirements for the product range are extensive, and in contrast to Nordic Ecolabelling, there are detailed requirements setting out which organic products must be carried in different categories. For fish, for example, there is a minimum requirement concerning the number of fish products that are KRAV or MSC labelled. There are, however, no absolute requirements concerning energy consumption, which Nordic Ecolabelling has. The same is true for waste – there is a requirement for sorting at source, but there is no limit value for general waste. Just over 170 stores in Sweden carry the Bra Miljöval label[9].

Miljøfyrtårn:

Miljøfyrtårn (Eco-Lighthouse) is a Norwegian scheme aimed at small and medium-sized enterprises. The aim is that the business receives help in conducting an eco-analysis and setting up an action plan for reducing its environmental impact. There are requirements that all Miljøfyrtårn-certified enterprises must meet and industry-specific requirements. The certification is valid for 3 years. As of 12 December 2014, there were 185 Miljøfyrtårn-certified grocery stores in Norway[10]. In general, the requirements set by Miljøfyrtårn are less strict than the requirements of the Nordic Ecolabel. The industry-specific requirements for grocery stores include product range requirements and energy requirements. Miljøfyrtårn has no limit value for energy, but sets prescriptive requirements such as that heat from chillers and freezers must be recovered. The situation is similar for waste requirements – there is no limit value for general waste or food waste, but the store must sort its waste and set up a plan to reduce its food waste.

KRAV:

KRAV is a Swedish labelling scheme for food, but there are also criteria for grocery stores. There are around 800 KRAV-certified grocery stores[11]. The main focus of the criteria is on sales of KRAV-labelled products through clear signage of products and good knowledge among staff. The stores must also work to reduce their energy consumption, but there is no limit value for how much energy a store may use.

Grøn Butik:

Grøn Butik (Green Store) is a Danish concept born out of a collaboration between Københavns Miljønetværk (The Copenhagen Environmental Network), Albertslund Municipality and Energitjenesten (The Energy Service)[12]. The scheme is currently run by Energitjenesten, whose aim is to promote energy savings and pave the way for the transition to a sustainable energy supply. Grøn Butik is essentially an environmental management system, where the stores conduct an energy and environmental review. Based on the conclusions of this, the store is expected to choose at least 3 action areas per year, such as electricity consumption, heat consumption, water consumption, chemicals, transport or waste management. The store must take part in one environmental campaign, or run one of its own, per year. The certificate is issued for a

[8] Naturskyddsföreningen, Bra Miljöval, Livsmedelsbutik Kriterier 2013:3
[9] www.naturskyddsföreningen.se/bra-miljoval/butiker, 30 Jan 2015
[10] www.miljofyrtarn.no, 30 Jan 2015
[11] www.krav.se/sok-foretag, 30 Jan 2015
[12] www.energitjenesten.dk/hvem-star-bag-gron-butik.html, 30 Jan 2015

year, and the store's results are then assessed in the chosen action areas before a new certificate is issued.

LEED/BREEAM:

It is possible to certify stores under various building standards. It is the building itself that is certified, not the business. Examples of such standards are BREEAM and LEED. In Finland, several players in the grocery market have LEED-certified buildings. Some chains in Denmark are also starting to obtain LEED certification.

ISO 14001/EMAS:

The aim of an environmental management system is to help a business keep its operations in order. With an environmental management system, a business can show that it is working on reducing its environmental impact and on meeting official requirements. The business sets itself certain environmental targets, and then draws up a strategy for reaching those targets. Environmental management systems set no requirements for the level of ambition shown by the business. The most common environmental management systems are the international standard ISO 14001 and EMAS, which was developed by the EU. Grocery stores can certify themselves under both these systems, but take-up is not very widespread.

3 About the criteria revision

3.1 Purpose of the criteria revision

Main aim

The overall aim of the revision has been to develop a new version of the criteria for the Nordic Ecolabelling of grocery stores – version 3. A central element of this has been the work on developing a new web-based application tool for the processing of applications. This application tool includes an energy tool for calculating the energy efficiency of the stores. The tool has also been updated to take account of the amendments that have been proposed for the energy requirements.

Subsidiary aims

The revision of version 2 of the criteria for grocery stores has been conducted on the basis of the following subsidiary aims:

- A new criteria model is to be developed that makes it possible to Nordic Ecolabel entire retail chains. The product group definition shall include a list of the basic conditions that must be in place for a chain to be able to apply. The new criteria model shall be checked with the major Nordic retail chains ahead of the consultation.
- Requirements with a low RPS shall be removed to reduce the burden of work and documentation associated with an application. The evaluation highlighted a number of requirements that cannot be considered to have produced the desired environmental effect. The revision will continue, based on the conclusions that came out of this evaluation.
- The energy tool shall be developed in terms of how the results are presented. It shall be possible for customers to compare themselves with an average for other

Nordic Ecolabelled stores and to monitor their own energy consumption on a quarterly basis.

- If possible, a requirement shall be developed for sales of organic and ecolabelled products. The product range requirement shall otherwise be tightened for Sweden and Denmark. The definition of organic and which labelling schemes may be counted as ecolabels shall be reviewed and harmonised with the work done during the revision of the criteria for hotels, restaurants and conference facilities, where relevant.
- The limit values for general waste shall be tightened. At the same time, the limits must be updated to account for food prices and currency fluctuations.
- The possibility of developing a requirement for food waste shall be investigated. If we find that it is not possible to introduce a limit value, the inclusion of requirements that can steer towards less food waste shall be considered.
- The requirements for environmental management shall be reviewed with a view to making them relevant and useful for stores/chains. More use of internal audits shall be a focal point.

The aim that stores should be able to compare their energy index values with other Nordic Ecolabelled stores is a function in the search tool that Nordic Ecolabelling has developed for grocery stores.

3.2 About this revision

The project was carried out as an internal project within Nordic Ecolabelling. P2 Energi, formerly Partor, was hired to carry out the amendments to the energy tool. It was also they who developed the tool for version 2.

Marte Kjølberg Thommesen served as project manager during the revision. The expert advisor was Per Sandell. Other input from the industry was gathered via the respective national secretariats, with Lise Glad (D), Anders Ødegaard Gammelsrud (N), Harri Hotulainen (F) and Elsa Levinson (S) serving as the contacts with the grocery stores.

During the consultation, the requirements and the search tool will be tested on a selection of grocery stores. Based on comments received during the consultation and the results of testing the requirements, amendments will be made to the proposal, which will then be put before the Nordic Ecolabelling Board for a decision.

4 Background to the requirements

4.1 General

The section "Products that can be labelled" in the criteria document for grocery stores states that a grocery store must have a broad range of products in several product groups, and groceries must account for more than 50% of sales.

The reason for this limitation in the product group definition is to ensure that Nordic Ecolabelling certifies stores where we have identified that it is relevant to set environmental requirements, where we see there are differences in the industry and

where the Nordic Ecolabel can help to separate out the best stores from an environmental perspective.

4.1.1 Groceries as a proportion of total sales

The requirements set by Nordic Ecolabelling have to be applicable to everyone who applies. For example, the product range requirements are based on the scope that a traditional grocery store has for selling ecolabelled products. For a large supermarket where much of the sales come from goods such as vacuum cleaners, frying pans, clothing and so on, the starting point for meeting Nordic Ecolabelling's requirements in this area is very different.

The intention of requirement O1 is to filter out the stores that sell a large proportion of goods that are not groceries.

O1 Groceries as a proportion of total sales

The business applying for the licence must have sales of groceries that account for over 50% of total sales for the business.

Retail chains must meet the requirement at chain level. This means that the figure for groceries as a proportion of total sales must be calculated for the chain as a whole.

In this context, groceries are defined as goods that are expected to be consumed or used within a limited period. A grocery can be either a foodstuff/ drink or a consumable. A list of products defined as consumables is given in appendix 1. Some examples are kitchen paper, cleaning agents and sanitary products.

✉ State the total sales of groceries, excluding VAT, for the business in Nordic Ecolabelling's electronic application guide. Use the sales figures for the past 12 months.

4.1.2 Breadth of product range

The intention of requirement O2 is to filter out the stores that only sell goods in a small number of product areas, such as bakeries, greengrocers or internet stores that only sell chocolate. Once again, the focus of the limits is on ensuring that Nordic Ecolabelling's requirements are relevant to all applicants. Setting an energy requirement that is relevant to both a traditional grocery store with a large need for chillers and freezers, and a speciality store that only sells one product type or where the need for chillers and freezers is limited, would be extremely difficult.

Nordic Ecolabelling has chosen to filter out the specialist businesses via a requirement that the store must sell goods in at least 10 of the 18 stated product categories – a level set by Nordic Ecolabelling in order to ensure the relevance of the requirements.

O2 Breadth of product range

The grocery store must sell groceries in at least 10 of the product categories in the table below.

Retail chains must meet the requirement for all the units that are included in the licence. This may either be done by the chain's stores selling goods in the same categories, or by the stores in the chain having a joint agreement to sell goods in at least 10 categories, with these varying from one store to another.

	Product categories with examples of goods
1	Fruit and vegetables incl. fresh herbs and spices
2	Meat and fish – fresh/preserved: Pure meat and fish products, meat and fish balls, burgers and fishcakes, sausages, pickled herring, fresh pastes Ready-made food: Pea soup, porridge, pancakes
3	Sandwich toppings: Cheese, tofu, brawn, pâté, ham, sausage, herb butter, caviar
4	Dairy: Milk, sour cream, soured dairy products, yoghurt, cream, crème fraiche, butter, eggs and juice
5	Baked goods: Fresh bread, crisp bread, biscuits, cakes, breadcrumbs
6	Drinks: Beer, soft drinks, mineral water, cordials, drinks made from soya, rice or oats
7	Coffee, tea, drinking chocolate
8	Preserved foods in jars, tins and boxes, herbs and spices, dry semi-finished products
9	Children's food incl. porridge, gruel, snacks and drinks
10	Grains and baking ingredients: Meal, flour, rice, pasta, quinoa, couscous, breakfast cereals, sugar, icing sugar, syrup, honey, vanilla, nuts, dried fruit
11	Chocolate, sweets, snack nuts and potato crisps
12	Frozen foods: Vegetables, fish, meat, ready-made meals
13	Ice cream and frozen berries
14	Office paper, writing books, envelopes, sketchbooks, books, greeting cards, wrapping paper and newspapers
15	Light sources and batteries
16	Kitchen paper, toilet paper, tissues, serviettes, candles, baking parchment, muffin cases, coffee filters
17	Household chemicals: Dishwasher detergent, washing-up liquid, general-purpose cleaner, sanitary cleaner laundry detergent, specialist cleaner
18	Toiletries: Shampoo, hand soap, shower gel, cosmetics, tampons, sanitary towels, nappies, cotton wool, cotton wool buds

✉ Confirm that the store covers at least 10 of the product categories in Nordic Ecolabelling's electronic application guide.

4.2 Requirement concerning maintenance of the licence

4.2.1 Annual reporting

Credibility is vital if an ecolabel is to function in the market. Licensees must therefore not only show that they meet the Nordic Ecolabel's requirements at the time of application. They must also be able to show that they do so throughout the entire validity period of the licence.

It is not just internal decisions that determine whether a store can meet the Nordic Ecolabel's requirements throughout the entire validity period of the licence. Requirements from authorities and changes in the market could change a store's capacity to meet its obligations towards the Nordic Ecolabel. Here are two examples:

- An EU directive on the phasing out of refrigerants means that most stores will need to adapt their chillers and freezers. This could lead to a major change in the store's energy efficiency and is something that must be followed up.
- Demand for organic products has increased sharply in recent years. The market could, for various reasons, change such that the supply of organic goods is lower over a certain period than it was at the time of application.

In a grocery store, as in most workplaces, most of the employees have several duties that they need to attend to at the same time. In such a world, it is important to have a control function in place that ensures compliance with the requirements of the Nordic Ecolabelling over time. Nordic Ecolabelling considers that the best way of doing this is for the licensee to report annually on the central parameters of the Nordic Ecolabel licence. This is done in Nordic Ecolabelling's electronic application guide. The licensee will receive a reminder by email about the deadline for reporting. If a deviation is discovered as part of the annual reporting, the licensee will receive feedback on this, along with a deadline for rectifying the deviation. If the deviation is not rectified, Nordic Ecolabelling may withdraw the licence.

O3 Annual reporting

In its annual reporting to Nordic Ecolabelling, the store shall ensure that the requirements are fulfilled for the entire validity period of the licence.

The areas on which the store must report may vary from year to year and may relate, for example, to organic food and drink as a proportion of sales, energy consumption and amounts of waste.

The licensee will receive an email stating when reporting is to take place.

✉ Report in the areas for which information is required, submitted via Nordic Ecolabelling's electronic application guide, before the deadline for reporting expires.

4.2.2 Responsible persons for contact with Nordic Ecolabelling

High staff turnover can be a challenge in the grocery sector. It can also be a challenge with regard to the Nordic Ecolabelling of a store. When a person who has had responsibility for producing documentation and carrying out annual reporting leaves, important experience may be lost. Passing on information and knowledge to their successor is thus vital.

A responsible person is required to ensure that the requirements of the Nordic Ecolabel are fulfilled throughout the entire validity period of the licence and that the annual reporting is completed. Retail chains and internet stores comprising multiple units should preferably appoint just one person with responsibility for the licence. If, for organisational reasons, it makes more sense to have one responsible person per store, special dispensation may however be sought.

It is worth noting that the responsible person and the contact person need not necessarily be the same in this context. Contact people are required with regard to completion of the application for the Nordic Ecolabel and act as a communications bridge between the store and Nordic Ecolabelling. If an applicant chooses to have the person responsible for the licence as the contact person for Nordic Ecolabelling, that is, of course, perfectly in order.

O4 Responsible persons

The store shall appoint an individual responsible for maintaining the Nordic Ecolabel licence. The store shall inform Nordic Ecolabelling if this person is replaced.

Retail chains and online stores comprising multiple units may state a person responsible for each unit on agreement with Nordic Ecolabelling.

✉ State who is responsible for maintaining the licence when applying for the Nordic Ecolabel.

4.3 Product range

4.3.1 Sale of organic products

Organic food and drink

Organic food and drink involves less use of biocides and artificial fertiliser than conventional products. At the same time, organic production is a guarantee against the spread of monocultures and the threat to biodiversity. In a British study from 2014, researchers at Oxford University found that organic production methods increased species diversity among pollinators (e.g. honeybees) by 30% compared with conventional farming methods[13].

In this context, Nordic Ecolabelling takes organic food and drink to mean products that are labelled according to EU regulations (EC) No 834/2007 and (EU) No 203/2012, for example KRAV, Luomu, Debio, Ø-mærket and Tún-lífrænt.

The market for organic food and drink has risen sharply since 2000 all over the world. According to the British analysis firm Organic Monitor, the market more than tripled from 2000 to 2009[14]. The economic crisis of 2009 caused growth to stagnate somewhat, but the economic downturn has not impacted on the Nordic markets in the way that it has on many other markets around the world.

There are considerable differences between the Nordic countries when it comes to organic products as a proportion of sales. A survey of the production and sale of organic products, conducted by Bioforsk on behalf of Nordic Ecolabelling in 2013, shows that sales of organic products are highest in Denmark. Here, organic products accounted for 8% of total food and drink sales. The table below also shows the corresponding figures for the other Nordic countries. It was not possible to obtain data for Iceland.

Table 2: The table shows relative sales of organic food and drink, plus organics as a percentage of total sales in Nordic countries in 2013[15].

	Organic sales (mill. €)	organics as % of total sales
Denmark	758	8.0
Finland	202	1.6
Norway	162	1.2
Sweden	870	3.8

[13] Tuck, S., L., Winqvist, C., Mota, F., Ahnström, J., Turnbull, L., A., Bengtsson, J.: "Land-use intensity and the effects of organic farming on biodiversity: a hierarchical meta-analysis", Journal of Applied Ecology, 2014, 51, pp 746-755
[14] www.ekomatcentrum.se/index.htm
[15] Solemdal, L., Friis Pedersen, S., "Økologisk mat i de nordiske landene - tilgang på råvarer og faktorer som påvirker omsetning av økologisk mat", Biofosk, 2014

A status report from Sweden's Ecoweb on the sale of organic food and drink for the first half of 2015 shows a marked upswing in Sweden in the past couple of years. At the year end 2014, sales of organic food and drink accounted for 5% of total sales. The figure six months later was 7.5%[16]. The same source states that Denmark is thought to have hit 8% in 2015. The figures for Sweden also include KRAV-labelled fish – i.e. wild-caught fish certified to the KRAV standard.

Sustainable fishing

The marine ecosystem is subject to a number of threats, including overfishing, climate change, eutrophication and pollution. Despite international fishing being regulated via international agreements and national licences and quotas, the situation for some commercial fish stocks is unsatisfactory. According to a report on biodiversity which Albaeco, Sensegroup and U&We produced for Nordic Ecolabelling in 2012, 84% of the world's fisheries were fully exploited or overfished in 2008. The equivalent figure for 1995 was 66%[17].

The European Regulations (EC) No 834/2007 and (EC) No 203/2012 set out a regulatory framework for how products labelled as organic must be produced. Wild-caught fish and shellfish are not part of this framework – which means that wild-caught fish and shellfish cannot be called organic under these regulations. There are, however, certification schemes specifically for fish and shellfish. Their aim is to ensure that the produce is sourced from a sustainable fishery. There can be major differences between the various certification schemes, and thus between the requirements they set for the fisheries that wish to be certified. Nordic Ecolabelling has drawn up a set of requirements concerning standards and certification schemes for fisheries. These are listed in Appendix 2 to this document. In order for Nordic Ecolabelling to accept a product as certified, the standard and system under which it is certified must meet the set requirements. At the current time, Nordic Ecolabelling has approved KRAV, Debio and MSC as certification schemes for fisheries.

Justification for requirement

The assessment of relevance, potential and steerability in chapter 2 of this document highlights the product range as one of the key environmental areas for a store. In this area, the relevance and potential are high, while steerability is medium. The latter is due to the fact that the stores' choice of goods on the shelves is to a large degree driven by customer demand. And if the store does not offer its customers what they want, they will choose to shop elsewhere. There are, however, several measures that the stores can take to increase sales of a particular product. Examples of these are informing customers where they can find the products in question or running a campaign to drive up sales.

Nordic Ecolabelling wishes to stimulate increased production and sale of organic products and certified fish. We are doing this partly through an obligatory requirement on the proportion of total sales that must derive from the sale of organic products and certified fish. In addition, points are awarded if the store's sale of organic goods and certified fish exceeds the obligatory level. The higher the proportion of organic/certified, the more points are awarded.

To take account of the differences between the Nordic countries in terms of supply and demand for organic food and drink, the requirement is differentiated. There are stricter

[16] Ecoweb: "Halvårsrapport 2015"
[17] Albaeco, Sensegroup, U&We:

requirements for the Danish and Swedish grocery stores than for those in Finland, Norway and Iceland. If we had not differentiated between the countries in this way, the requirement would either have been too easy for Swedish and Danish stores to fulfil or too difficult for Finnish, Icelandic and Norwegian stores.

The levels in the obligatory requirement have been set slightly higher than the average proportion of organic/certified sales in the respective countries – see table 2 and the status report from Ecoweb for the first six months of 2015. The point score requirement is designed to specifically stimulate increased sales at the stores that have a low proportion of organic/certified products.

Retail chains comprising multiple units must meet the obligatory requirement at chain level. The proportion of organic/certified sales thus becomes the chain's total sales of organic food and drink and certified fish in relation to the chain's total sales of all food and drink (organic + certified + conventional). The chain must be able to document its sale of organic and certified products by showing the chain's sales figures or equivalent.

O5 Sale of organic food and drink, and products from sustainable fishing

Organic food and drink plus products from sustainable fishing must account for at least 1.7 % of sales for Norwegian and Finnish stores, 6 % for Swedish stores and at least 8.5 % for Danish stores. There is no obligatory requirement for Icelandic stores.

The proportion of sales is calculated as follows:

$$x\,\% = \frac{Sale\ of\ organic\ food\ and\ drink + sale\ of\ sustainable\ fishing}{\text{Total sale of food and drink}}$$

The proportion of sales is to be calculated based on sales figures excluding VAT.

Retail chains and internet stores comprising multiple units must meet the requirement at chain level. This means that the proportion of sales is to be calculated as a whole for the stores included in the application.

The proportion of sales is to be based on statistics from the past 12 months. By prior agreement, Nordic Ecolabelling may accept statistics for a shorter period, if the period is representative of normal operations.

The requirement may also be fulfilled based on proportion of purchases.

In this context, organic food and drink means products that are labelled according to EU regulations (EC) No 834/2007 and (EU) No 203/2012, for example EU Ecolabel, KRAV, Luomu, Debio, Ø-mærket and Tún-lífrænt.

Sustainable fishing is, in this context, defined as MSC certified fishing or fishing meeting the requirements set by KRAV for wild caught fish and shellfish. Other certification schemes may be approved by Nordic Ecolabelling on demand. They must meet the requirements for standard and certification scheme given in appendix 2.

✉ State the sales of organic food and drink and products from sustainable fishing, excluding VAT, in Nordic Ecolabelling's electronic application guide.

✉ State the total sales of all food and drink, excluding VAT, in Nordic Ecolabelling's electronic application guide.

✉ Upload data confirming the required sales statistics in Nordic Ecolabelling's electronic application guide.

P1 Higher sales of organic products and products from sustainable fishing

The store receives points as set out in the table below, if the proportion of sales of organic food and drink and products from sustainable fishing is higher than the level

set in the obligatory requirement. Retail chains and internet stores comprising multiple units receive points based on the chain's proportion of sales as calculated in O5.

Points	Iceland	Denmark	Norway	Finland	Sweden
1	≥ 0.5 %	≥ 8.8 %	≥ 1.8 %	≥ 1.8 %	≥ 6.5 %
2	≥ 0.6 %	≥ 9.0 %	≥ 1.9 %	≥ 1.9 %	≥ 7.0 %
3	≥ 0.8 %	≥ 10 %	≥ 2.2 %	≥ 2.2 %	≥ 8.0 %
4	≥ 1.0 %	≥ 11 %	≥ 2.5 %	≥ 2.5 %	≥ 9.0 %
5	≥ 1.5 %	≥ 13 %	≥ 2.9 %	≥ 2.9 %	≥ 10 %
6	≥ 2.0 %	≥ 15 %	≥ 3.3 %	≥ 3.3 %	≥ 12 %
7	≥ 2.5 %	≥ 17 %	≥ 3.7 %	≥ 3.7 %	≥ 14 %
8	≥ 3.2 %	≥ 20 %	≥ 4.5 %	≥ 4.5 %	≥ 16 %
9	≥ 3.9 %	≥ 23 %	≥ 5.3 %	≥ 5.3 %	≥ 18 %
10	≥ 4.6 %	≥ 26 %	≥ 6.1 %	≥ 6.1 %	≥ 20 %

Different points are awarded from country to country due to differences in the availability of organic products and products from sustainable fishing.

Nordic Ecolabelling's electronic application guide automatically calculates the number of points based on the information given in O5.

4.3.2 Sale of ecolabelled products

Different ecolabels

The production and use of most consumables and durable products has a negative environmental impact. The scale of that impact varies from one product to another. There are many different ecolabels in the market steering consumers towards the best products in environmental terms. Several of these are commonly seen in grocery stores. Some labelling schemes are more focused on self-declaration. Others give a guarantee only for part of the product's ecocycle. Yet others are ecocycle-based certification schemes operated by an independent third party and in line with the ISO 14024 standard's type 1 ecolabels. There can thus be major differences in what an ecolabel is trying to convey to consumers.

Below is an overview of certain types of ecolabels and what characterises them:

Type 1 ecolabels under the ISO 14024 standard: An ecolabel of this type sets numerous requirements. An ecocycle approach is a central feature behind the requirements. In addition, the requirements have to be measurable and time-specific. The certification also has to be carried out by an independent third party. The Nordic Ecolabel is one such ecolabel. Other examples are the EU Ecolabel and Bra Miljöval.

Labelling schemes that give a guarantee only for part of the product's ecocycle. There are many labels in this category. FSC (Forest Stewardship Council) is one. FSC is a certification scheme for wood raw material and guarantees sustainable forestry. However, it says nothing about the end product that the raw material is turned into. Paper and furniture may carry the FSC label. This means that the wood raw material is sustainable, but we know nothing about the production of the paper or the furniture.

Private labelling schemes: Labels that have been developed by a manufacturer or a supplier with a view to marketing themselves on the environmental front. In this case, there is rarely any transparency about what requirements apply. It is also the manufacturer who vouches for the product, so the label is more of a self-declaration.

Justification for requirement

Nordic Ecolabelling wishes to reduce the impact on the environment and help customers to choose environmentally better alternatives by stimulating increased sales of ecolabelled products. We are doing this partly through an obligatory requirement on the proportion of total sales that must derive from the sale of ecolabelled consumables (O6). In addition, points are awarded if the store's sale of ecolabelled consumables exceeds the obligatory level (P2). The higher the proportion of ecolabelled, the more points are awarded.

Some grocery stores have high sales of durable products. In this context, durable products are defined as products that are not groceries and that one might not necessarily expect to find in a regular grocery store. Examples of durable products include office paper, notepads, pens, furniture and paint. For most grocery stores, sales of such products are relatively limited and rarely exceed 10%. But in those cases where sales are high, it is even more relevant for Nordic Ecolabelling to set requirements. Requirement O7 is therefore set only for stores with sales of durable products in excess of 10% and it ensures that such stores also offer ecolabelled products. The reason for keeping durable products outside requirements O6 and P2 is the relatively high cost associated with goods in this category. Where there is currently a limited choice of ecolabelled durable products, stores with high sales of durable products would do very poorly if O6 and P2 also included durable products.

To ensure that sales of ecolabelled products actually generate environmental gains, Nordic Ecolabelling has chosen only to approve type 1 labels under ISO 14024 as ecolabels. Based on an assessment of which type 1 ecolabels are common to the Nordic market, the Nordic Ecolabel, the EU Ecolabel, Bra Miljöval, TCO and GOTS are approved ecolabels in this context. TCO is a certification scheme for IT products, while GOTS is a certification scheme for textiles. Both labels are thus associated with what we call durable products. This is why only the Nordic Ecolabel, the EU Ecolabel and Bra Miljöval are mentioned in the requirement concerning consumables, while all five are included in the definition of ecolabels in the requirement concerning durable products.

To take account of the differences between the Nordic countries in terms of the supply of ecolabelled products, the requirements are differentiated. There are stricter requirements for the Danish and Swedish grocery stores than for those in Finland, Norway and Iceland. If we had not differentiated between the countries in this way, the requirement would either have been too easy for Swedish and Danish stores to fulfil or too difficult for Finnish, Icelandic and Norwegian stores.

The set requirement levels are based on sales figures from the industry.

Retail chains comprising multiple units must meet the obligatory requirement at chain level. The proportion of ecolabelled sales thus becomes the chain's total sales of ecolabelled consumables in relation to the chain's total sales of all consumables. The chain must be able to document its sale of ecolabelled products by showing the chain's sales figures or equivalent.

O6 Sale of ecolabelled consumables

Ecolabelled consumables must account for at least 20% of sales in Swedish and Danish stores, 15% in Norwegian stores and 9% in Finnish stores. There is no obligatory requirement for Icelandic stores.

The proportion of sales is calculated as follows:

$$x\,\% = \frac{Sale\ of\ ecolabelled\ consumables}{\text{Total sale of consumables}}$$

The proportion of sales is to be calculated based on sales figures excluding VAT.

Retail chains and internet stores comprising multiple units must meet the requirement as an average at chain level. This means that the proportion of sales is to be calculated as a whole for the stores included in the application.

The proportion of sales is to be based on statistics from the past 12 months. By prior agreement, Nordic Ecolabelling may accept statistics for a shorter period, if the period is representative of normal operations, and if the requirement concerning the proportion of sales is met by a good margin.

The requirement may also be fulfilled based on the proportion of purchases.

Ecolabelled, in this context, means products that carry the Nordic Ecolabel, the EU Ecolabel or the Bra Miljöval (Good Environmental Choice) label.

A list over products defined as consumables is given in appendix 1.

☒ State the total sales of ecolabelled consumables, excluding VAT, in Nordic Ecolabelling's electronic application guide.

☒ State the total sales of all consumables, excluding VAT, in Nordic Ecolabelling's electronic application guide.

☒ Upload data confirming the required sales statistics in Nordic Ecolabelling's electronic application guide.

P2 Higher sales of ecolabelled consumables

The store receives points as set out in the table below, if the proportion of sales of ecolabelled consumables is higher than the level set in the obligatory requirement. Retail chains and internet stores comprising multiple units receive points based on the proportion of sales as calculated in O6.

Points	Iceland	Denmark	Norway	Finland	Sweden
1	≥ 2.5 %	≥ 21 %	≥ 16 %	≥ 10 %	≥ 21 %
2	≥ 3.0 %	≥ 22 %	≥ 17 %	≥ 11 %	≥ 22 %
3	≥ 4.0 %	≥ 24 %	≥ 19 %	≥ 12 %	≥ 24 %
4	≥ 5.0 %	≥ 26 %	≥ 21 %	≥ 14 %	≥ 26 %
5	≥ 7.0 %	≥ 29 %	≥ 24 %	≥ 16 %	≥ 29 %
6	≥ 9.0 %	≥ 32 %	≥ 27 %	≥ 18 %	≥ 32 %
7	≥ 11 %	≥ 35 %	≥ 30 %	≥ 21 %	≥ 35 %
8	≥ 15 %	≥ 40 %	≥ 35 %	≥ 23 %	≥ 40 %
9	≥ 19 %	≥ 45 %	≥ 40 %	≥ 27 %	≥ 45 %
10	≥ 23 %	≥ 50 %	≥ 45 %	≥ 32 %	≥ 50 %

Different points are awarded from country to country due to differences in the availability of ecolabelled products.

Nordic Ecolabelling's electronic application guide automatically calculates the number of points based on the information given in O6.

O7 Sale of ecolabelled durable products

The requirement applies to stores with sales of durables products that account for more than 10% of total sales. There is no obligatory requirement for Icelandic stores.

The store must have at least the number of ecolabelled products in each category as stated in the table below. If the store does not carry any products in a particular category, there is no requirement concerning the number of ecolabelled products.

Retail chains and internet stores comprising multiple units are assessed as a whole unit. This means all the stores included in the licence must have a joint policy on the products in the table below and are awarded points accordingly.

Category	Denmark	Norway	Finland	Sweden
Sketchbooks, books, wrapping paper, adhesives, pens, hobby paints, watercolours, fingerpaints and crayons	3	3	2	6
Clothes, towels, bed linen and microfibre cloths	1	2	1	2
Furniture, outdoor furniture, toys, outdoor play equipment, flooring, stoves, paints, degreasers, car care products and washer fluid	2	2	1	2
TVs, PCs, monitors and printers	1	1	1	1

Durables, in this context, means products that are neither food/drink or consumable.

Ecolabelled means products that are labelled with the Nordic Ecolabel, the EU Ecolabel, the Bra Miljöval (Good Environmental Choice) label, GOTS or TCO.

The requirement will only be shown in the application guide, if the applicant has sales of durables in excess of 10%. The proportion of sales accounted for by durables is calculated based on the information given in the application and in O1.

☒ In Nordic Ecolabelling's electronic application guide, state which product categories goods are sold in.

☒ In Nordic Ecolabelling's electronic application guide, state which ecolabelled products are sold in each product category. State the licence number for Nordic Ecolabelled products.

☒ Upload images showing the ecolabelled products on the store shelves in Nordic Ecolabelling's electronic application guide.

4.4 Energy consumption

Energy consumption in grocery stores

Grocery stores are relatively high consumers of energy compared to other retailers. This is due chiefly to grocery stores using large amounts of electricity to run their chillers and freezers. The table below shows average electricity consumption in small, medium and large stores. The data is taken from stores with a Nordic Ecolabel licence under version 2 and is stated in kWh and SEK millions. The figures show that the stores' energy consumption is a relevant area for Nordic Ecolabelling to set requirements in.

Table 3: The table shows that grocery stores use large amounts of electrical energy. Note that there is no linear correlation between sales and electricity consumption.

Size	Sales	Average
Large	Over SEK 300 million	3,400,000 kWh
Medium	SEK 100–300 million	2,000,000 kWh
Small	Less than SEK 100 million	740,000 kWh

Almost all the energy consumed in a grocery store is electricity. Data from 271 Nordic Ecolabelled stores shows that electricity accounts for 95% of the energy consumed.

District heating delivers most of the remaining 5%. A small number of stores use oil for heating and district cooling for chillers and freezers.

Nordic Ecolabelling has set requirements concerning energy consumption in its criteria for grocery stores since 2010. Over that period, we have handled many hundreds of applications and we have seen what major differences there are in the sector when it comes to energy optimisation. This shows that there is considerable potential for energy efficiencies in many businesses.

Finnish grocery stores and energy efficiency agreements

Stores in Finland are covered by national energy efficiency agreements[18], which are an important tool for promoting energy efficiency in Finland. The agreement system plays a central role in Finland's implementation of the EU Energy Efficiency Directive 2012/27/EU.

Through the agreements, the businesses commit to continuously improve their energy efficiency. This assumes, not least, that the businesses know about and monitor their energy consumption and are aware of their own scope to save energy. An energy survey has to be conducted every four years. The opportunities for more efficient use of energy are required to be evaluated each year.

Under the energy efficiency agreements, the retail chains report their energy consumption in kWh/m^2.

Nordic Ecolabelling has chosen to set a specific Finnish energy requirement that is based on the way the stores in Finland report their energy consumption. One condition for Finnish stores being able to apply the specific Finnish requirement is that their data for energy consumption includes energy for ventilation and heating. If it does not, for example because the store is part of a larger shopping centre and pays for part of its energy consumption through its lease, this means that large parts of their actual energy consumption are unknown. In such cases, the Finnish stores must meet the same requirements as stores in the rest of the Nordic region, which are assessed according to a calculated energy index.

Calculating a store's energy index

The energy consumption of a grocery store is determined by many different factors. There are two steps to calculating a store's energy index:

In step 1, Nordic Ecolabelling calculates how much energy the store should use, assuming technical installations function properly and the store's refrigeration and freezer units are covered 24 hours a day. The following parameters are taken into account when calculating what the level of energy consumption should be.

- The floor area of the store, including offices and warehouse
- Annual average temperature
- No. of metres of different types of display chillers
- No. of metres of different types of display freezers
- No. of chiller rooms and their floor area

[18] http://www.energiatehokkuussopimukset.fi/sv/

- No. of freezer rooms and their floor area
- No. of portions of food the store prepares
- Size of bakery ovens
- Size of chicken roasters

How much food preparation, bakery ovens and chicken roasters contribute to total energy consumption varies a great deal from store to store. Figures from stores with a Nordic Ecolabel licence show that in stores that sell a lot of pre-prepared food, food preparation can account for as much as 20% of the total electricity consumption. The corresponding figure for stores with high sales of bread baked in the store is 14%.

In step 2, the calculated energy need from step 1 is compared with how much energy the store actually uses. Since many stores are part of a larger building complex, they do not always have control over the energy used for heating and ventilation. Many grocery stores pay a supplement in the lease that covers ventilation and heating, but the amount of energy used to meet the store's needs is difficult to separate out. If energy for ventilation and heating is not included in a store's electricity bill, a supplement is therefore added for this. The size of the supplement depends on the floor area of the store and the annual average temperature.

Example:

In step 1 the energy need for a grocery store is estimated to be 800,000 kWh. The store purchases 1,000,000 kWh electricity annually. Since the store is part of a shopping centre, and ventilation and heating are not included in the stated energy consumption, a supplement of 200,000 kWh is added. The actual energy consumption is thus 1,200,000 kWh. The store therefore uses 400,000 kWh more than the energy need calculated in step 1.

In revising version 2 of the criteria for grocery stores, a number of simplifications and amendments have been made to the way the energy index is calculated. An overview of the changes that have been made is provided in Appendix 3. The changes have, unfortunately, meant that it is no longer possible to compare a store's results between version 2 and version 3.

The diagram below shows the energy index for 271 Nordic Ecolabelled stores over the period 2010–2014. The vertical axis represents the index values.

If a store has an energy index of 1, this means that the store is well run in energy terms. An energy index of 2 represents a store that consumes twice as much energy as it is actually needs to be consuming.

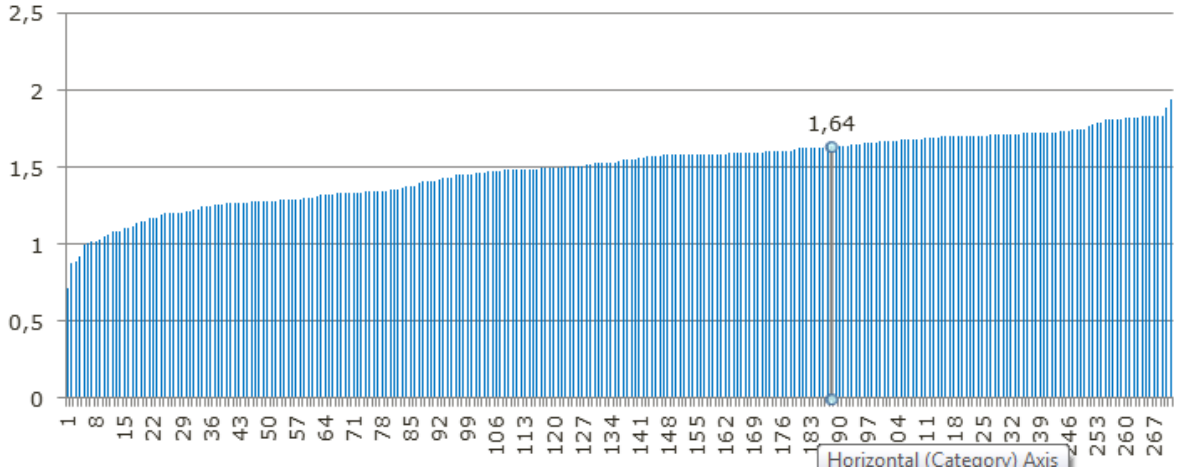

Figure 1: The diagram shows the energy index for 271 Nordic Ecolabelled stores over the period 2010–2014.

Justification for requirement

Nordic Ecolabelling wishes to reward grocery stores that, considering their own specific circumstances, have low energy consumption. This is done in part through an obligatory requirement concerning how high the index value may be. Thereafter, stores with index values below the obligatory limit value are rewarded in a point score requirement. Separate limits have been set for Finnish grocery stores that are adapted to the energy efficiency agreements and the reporting that these entail.

Calculation of the energy index is dependent on a number of conditions within the individual store, with a crucial factor being the number of metres of display chillers and freezers. As such, retail chains and internet stores comprising multiple units must calculate the energy index for each individual store before the results are weighted to produce a result for the chain as a whole. To ensure that there are no units within a chain that have excessively high energy consumption, there is a requirement that no unit can deviate more than 25% from the limit value. The same principle also applies for Finnish grocery stores. None of the units in a chain may have energy consumption equivalent to more than 25% of the obligatory limit value.

Justification for requirement limit for Danish, Swedish, Icelandic and Norwegian grocery stores: In version 2, the obligatory requirement was tightened several times over the validity period, and we find that the limit value of 1.6 is a good level for a Nordic Ecolabelled store. We have therefore decided not to tighten the requirement limit much more in this version of the criteria. However, the aforementioned amendments to the conditions in the energy tool have meant that the requirement limit has had to be amended to some extent. Testing of the energy tool shows that stores will have to expect a higher energy index in this edition of the energy tool. This does not mean the stores now use more energy or that the requirement is less strict. Figure 2 below shows a selection of stores and how their results vary depending on which version of the energy tool has been used. The input data is the same in both versions of the tool, but the conditions in the tool cause the values to change.

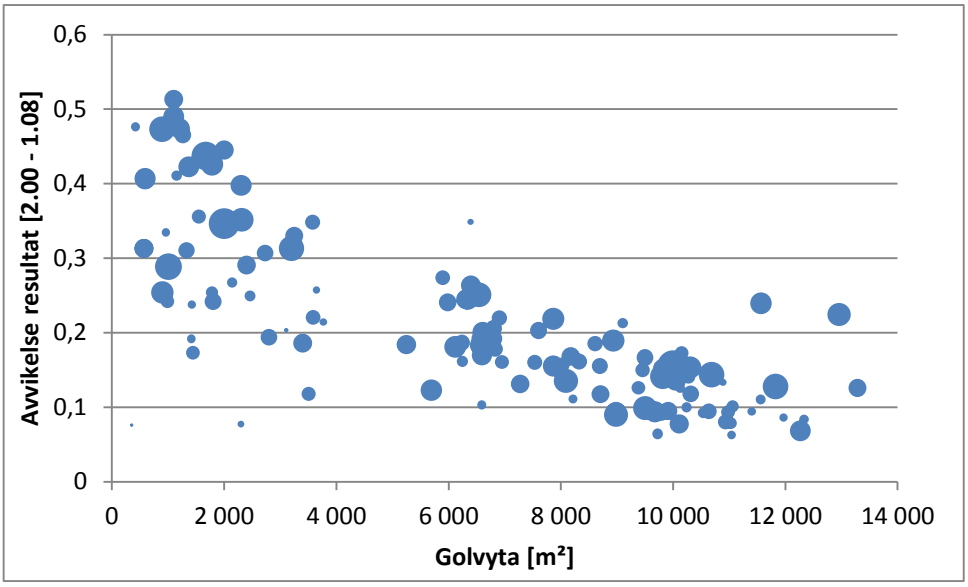

Figure 2: The figure shows a selection of stores and how great their energy index varies when they go from using the energy tool associated with version 2 to using the energy tool for version 3. The size of the dots indicates the results of the stores – the larger the dot, the higher the energy index.

As the figure shows, the energy index does not increase by the same amount for all stores. The change falls within the range 0.06–0.51. It is primarily smaller stores with a high refrigeration need that do worse in the new version of the energy tool. For some stores, this will mean that they no longer meet the energy requirement, despite them previously having done so, and despite the aim of maintaining the requirement level from version 2.

Figure 3 shows the results for all stores with a licence, if we transfer all the data to the new version of the energy tool.

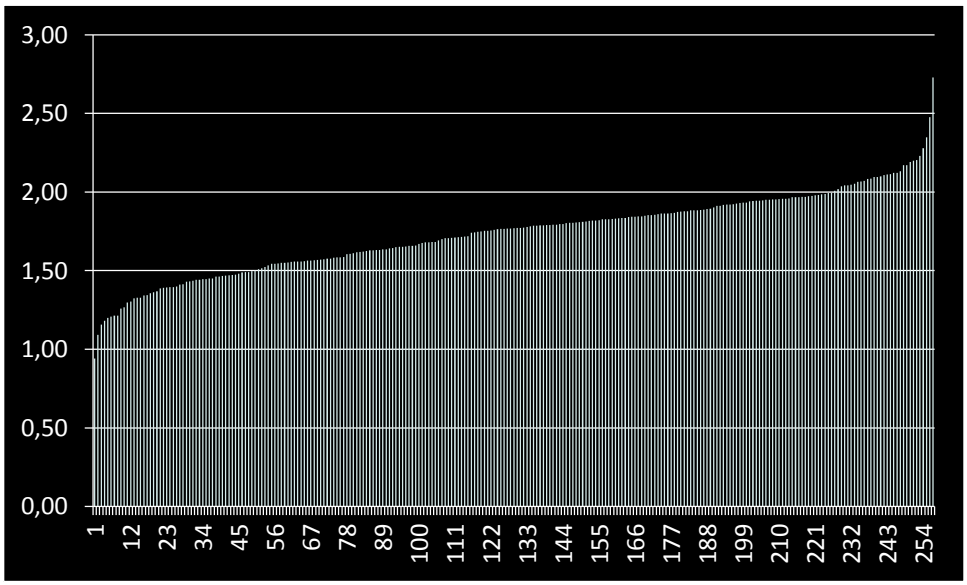

Figure 3: The figure shows the results for a selection of stores when the data is transferred to the new version of the energy tool.

A limit value of 1.95 has been set, based on an assessment of the results from figure 3 and the aim that the same number of stores as before should be able to fulfil the requirement. Note that the results are from stores that have or have had a licence under version 2. Some of the stores were unable to meet the energy requirement after the partial tightening in version 2. In summary, a limit value of 1.95 will mean that more or less the same number of stores in the data material above will meet the requirement as the number of stores that met the limit value of 1.6 in version 2 of the criteria.

Justification for requirement limit for Finnish stores: A specific Finnish energy requirement is new to this version of the criteria. This means that we do not have any previous licence data to use in setting a limit value.

Under the Finnish energy efficiency agreements, the stores report their energy consumption in kWh/m^2. Underlying data from licensing material shows, however, that it is not sufficient simply to relate energy consumption to the size of the store and its sales volume. The product range at the store, and particularly how many chilled and frozen foods the store offers, has a major impact on energy consumption. To take account of this variation, in the specific Finnish requirement we have introduced a correlation factor F that represents chilled and frozen foods as a proportion of the total quantity of groceries sold. Chilled and frozen foods are stated according to their EAN codes and refer to goods in the categories dairy, meat, fish, chilled, deli and frozen. It is important that the stores report exact sales figures, since a rough estimate does not provide sufficient data quality.

A figure of 40% chilled and frozen foods is common in the Finnish grocery sector. This represents an F factor of 1. The F factor is calculated as follows:

F = PCF/40 where

PCF = proportion of chilled and frozen foods as % of grocery sales

The store's relative energy consumption is calculated as follows:

SREC = (E/(F*Eelectricity + Eheating)) * E,

E = the store's purchased energy in kWh/m2

Eelectricity = the store's purchased electricity in kWh/m2

Eheating = the store's purchased heating in kWh/m2

Correlation factor F = PCF/40

PCF = the store's proportion of chilled and frozen foods as a percentage of grocery sales

The proportion of chilled and frozen foods only has an impact on the store's electricity consumption, not its heat consumption. This is why the F factor only has to be multiplied by the electricity consumption.

Below is an example showing the calculation of relative energy consumption for a Finnish grocery store:

A grocery store has electricity consumption of 320 kWh/m^2 and heat consumption of 120 kWh/m^2. Its chilled and frozen foods account for 33% of its total grocery sales. The calculation is thus as follows:

F = 33/40 = 0.83

E = 320 kWh/m^2 + 120 kWh/m^2 = 440 kWh/m^2

SREC = (440 kWh/m^2/((0.83 * 320 kWh/m^2) + 120 kWh/m^2) * 440 kWh/m^2)

= 502 kWh/m^2

A relative energy consumption of 502 kWh/m^2 means that the store comes in below the limit of 600 kWh/m^2.

The requirement limit of 600 kWh/m^2 has been set, based on information on energy consumption, floor area and proportion of chilled and frozen foods in a representative chain of Finnish grocery stores.

O8 Energy efficiency index

Danish, Swedish, Icelandic and Norwegian stores must fulfil part a) of this requirement. Finnish stores can fulfil part b) if the stores purchased energy includes ventilation and heating. Finnish retail chains can only use alternative b) if all the stores included in the license can verify that ventilation and heating are included.

a) The store's energy index should be no more than 1.95. The index is calculated in Nordic Ecolabelling's electronic application guide.

Retail chains and internet stores comprising multiple units must meet the requirement as a weighted average at chain level. Each store/unit thus must not have a level of energy consumption that exceeds the obligatory index by more than 25% - which equals an energy index no more than 2.44. This means that statistics must be stated for each store/unit.

For information on how the application guide calculates the energy index, see Appendix 3 to this criteria document. This appendix also explains how the index results for the individual stores are weighted in relation to each other.

b) The store's relative energy consumption (SREC) should be no more than 600 kWh/m^2. The relative energy consumption is calculated as follows:

SREC = E/(F*$E_{electricity}$ + $E_{heating}$) * E,

E = the store's purchased energy in kWh/m^2

$E_{electricity}$ = the store's purchased electricity in kWh/m^2

$E_{heating}$ = the store's purchased heating in kWh/m^2

Correlation factor F = PCF/40 where F_{max} = 1.25 and F_{min} = 0.75

PCF = the store's proportion of chilled and frozen foods as a percentage of grocery sales

Retail chains and internet stores comprising multiple units must meet the requirement as an average at chain level. However, no single store/unit must have energy consumption over 25% above the obligatory requirement – which equates to a relative energy consumption of 750 kWh/m^2. This means that statistics must be stated for each store/unit.

In this context, chilled and frozen foods refers to goods in the categories dairy, meat, fish, chilled, deli and frozen.

For alternative a):

☒ State all relevant data for the calculation of the energy efficiency index in Nordic Ecolabelling's electronic application guide.

☒ Upload documentation confirming the floor area of the store in Nordic Ecolabelling's electronic application guide. This may be a lease or equivalent document.

☒ Upload to Nordic Ecolabelling's electronic application guide documentation showing a calculation of the quantity of food produced in the store's kitchen.

☒ Upload documentation confirming that the energy for ventilation and heating is included in the stated energy consumption. This may be a confirmation from the building owner or the equivalent.

☒ Upload documentation confirming the amount of energy purchased in Nordic Ecolabelling's electronic application guide. This may be a bill from the energy suppliers or the equivalent. Use the energy consumption figures for the past 12 months.

For alternative b):

☒ Confirm that the purchased energy includes ventilation and heating in Nordic Ecolabelling's electronic application guide. Retail chains must verify this for all the units included in the license.

☒ Enter all the relevant data for calculating relative energy consumption in an Excel spreadsheet that is available from Nordic Ecolabelling. Then upload to Nordic Ecolabelling's electronic application guide documentation confirming the energy consumption, the store's floor area and the proportion of chilled and frozen foods in relation to total grocery sales.

P3 Good energy efficiency

The store receives points as set out in the table below, if the energy efficiency is better than the level set in the obligatory requirement. Danish, Swedish, Icelandic and Norwegian stores are assessed according to table a), while Finnish stores are assessed according to table b) if they have fulfilled part b) of requirement O8. Retail chains receive points based on the weighted average as calculated in O8.

Table a): Points table for Danish, Swedish, Icelandic and Norwegian stores.

Points	Energy index
1	≤ 1.94
5	≤ 1.80
10	≤ 1.60
15	≤ 1.40
20	≤ 1.15

Table b): Points table for Finnish stores if they have fulfilled part b) of requirement O8.

Points	Relative energy use
1	≤ 595
5	≤ 580
10	≤ 540
15	≤ 510
20	≤ 400

Nordic Ecolabelling's electronic application guide automatically calculates the number of points based on the information given in O8.

What the energy index does not take into account

The energy index does not weigh up different energy types against each other – neither in terms of primary energy or climate impact. Although district heating and electricity, for example, have different values for primary energy and for CO_2, in the judgement of Nordic Ecolabelling a weighting is not necessary since the stores' energy needs are overwhelmingly met by electricity.

The calculation of the energy index does not take account of the store's sales. This is because we cannot find any reliable correlation between high sales and energy efficiency.

In summary, Nordic Ecolabelling judges that the requirements concerning the store's energy efficiency work well and are a technology-neutral way of assessing the stores.

4.5 Requirements concerning waste and food waste

A great deal of waste is generated in grocery stores. Most of this waste can be sorted into the following fractions:

Plastics

Plastic packaging from retail and industry has a different composition compared with plastic packaging from private households. Household packaging is dominated by product packaging and sales packaging, while transport packaging makes up the majority in the commercial world. This means that commercial packaging is much more homogeneous and much purer than packaging from private homes, which makes it more suitable for material recovery.

Glass and metal

Glass and metal are in-demand raw materials. Recycled glass can be melted down to produce new glass products, but also has a host of other applications. Examples include insulation material and ballast in road projects. The biggest advantage of recycled glass is that it can be melted at lower temperatures than virgin glass. This makes recycled glass more energy-efficient and cheaper.

Scrap metal has many applications and demand is high. The metal is sold on to the metal industry and used as a raw material in a number of different products. Aluminium production using recovered material requires only 5% of the energy needed when using primary aluminium[19]. Steel is also well suited to material recovery. Around half of global demand for steel is met by recycled material.

Wood

Wood, for example in wooden pallets, can be recycled, or used for material recovery or energy recovery. Pure fractions of wood can be used for the production of fibreboard and the less pure fractions can be sent for combustion at an incineration plant.

[19] Norsk Hydro: http://www.hydro.com/no/Hydro-i-Norge/Om-aluminium/Aluminiumens-livssyklus/Resirkulering/, 7 March 2015

Organic waste

Food that for one reason or another cannot be sold, can be sorted as organic waste. Pure fractions with no animal protein (fruit, vegetables and baked goods) can be sorted and used as animal feed, while the rest of the food waste can be used to produce biofuel or for composting.

4.5.1 General (unsorted) waste

General waste is the waste that cannot be sorted out for material recovery and recycling, and is thus sent for incineration or to landfill. Waste that is sorted out specifically for incineration also counts as general waste. There are various practices in the grocery sector that determine how much of the waste ends up as general waste. A store that sorts its waste into many fractions tends to have little general waste, while a store that does not sort out food waste, for example, has a large amount of general waste. Waste sorting is a precondition for material recovery, and as such it is important that the amount of general waste is limited.

Justification for requirement

Nordic Ecolabelling wishes to stimulate increased sorting of waste. This is being done in three steps. Firstly, there is an obligatory requirement concerning how much general waste a store can have in relation to sales (O9). Thereafter, points are awarded if the amount of general waste is less than the level set in the obligatory requirement (P5). Finally, stores are rewarded based on how many fractions they sort their waste into (P6).

For stores in countries where food prices are high, fewer goods go through the store per million kroner/€. This does not generate any less waste per sales. Nordic Ecolabelling has therefore set requirements concerning waste that take account of the variations in food prices. According to Statistics Norway, food prices in 2012 were as follows:

Table 4: Food prices in the Nordic countries in 2012[20]. The figures are in % above the average for EU27.

Country	% above average in EU27
Norway	86
Sweden	24
Denmark	43
Finland	19
Iceland	18

The requirement levels have been set based on data from the stores that have a licence under version 2. They have been made slightly tougher, since the statistics show that there is room to tighten the requirements. Since food prices have changed since version 2 was adopted in 2010, the requirement limits in this version cannot be compared directly with the requirement limits in the preceding version. However, if we ignore the effect of food prices on the quantity of general waste that is generated, the tightening lies within the range of 0–30%. The levels have been tightened most for stores in Norway. The requirements for stores in Iceland have been kept at the same level as in version 2.

[20] Statistisk sentralbyrå: http://www.ssb.no/priser-og-prisindekser/artikler-og-publikasjoner/norge-har-europas-hoeyeste-matvarepriser?tabell=125039, 7 Mar 2015

The diagram below shows the results for stores with a licence under version 2. The vertical axis is kg general waste per million kroner in sales (in local currency). Since the currency is not the same and the food prices differ in the different Nordic countries, the diagram separates out the Norwegian and Swedish licences. The Norwegian licences are on the left in the diagram, and the Swedish ones are on the right. The three Danish licences are not included in the table for reasons of confidentiality, since the data sample is very small.

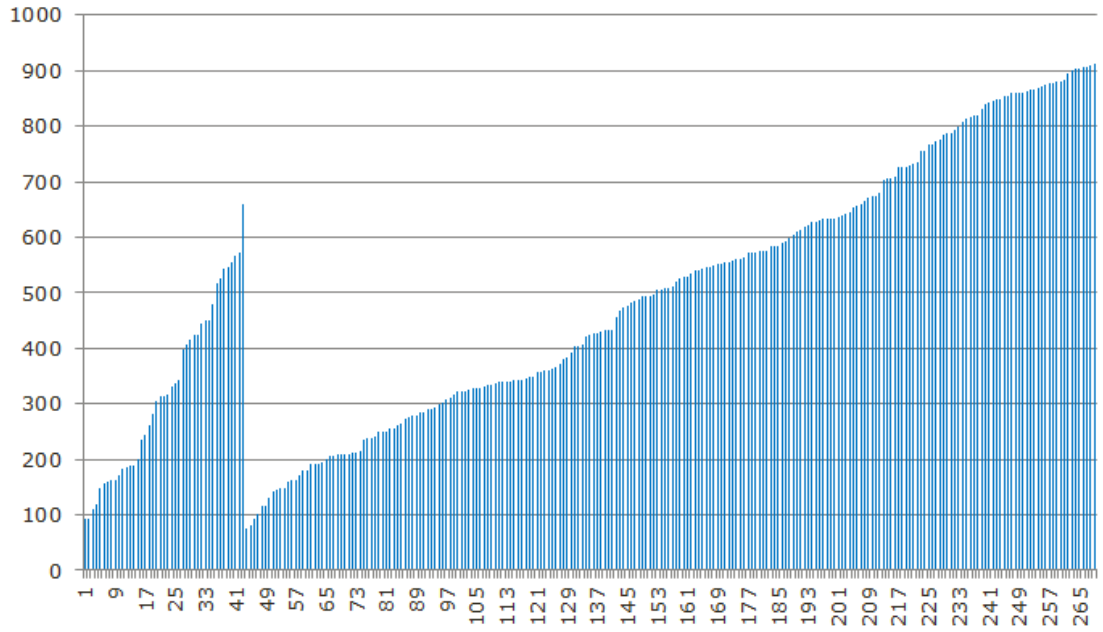

Figure 4: Amount of general waste in Nordic Ecolabelled stores in kg per million kroner in sales (in local currency). Norwegian stores appear on the left in the diagram, Swedish stores on the right.

Not all stores have their general waste reported to them in kg by their waste management contractor. Smaller stores in particular lack information about weight. The reason for this is that the general waste is collected in containers of different sizes that are not weighed before being emptied into the refuse trucks. It is gradually becoming more common for the refuse trucks to have weighing scales, but far from all have them. At larger stores, the waste is often pressed together in large compactors. When the compactor is emptied, the general waste is weighed and the store pays for the waste that the contractor takes away.

Nordic Ecolabelling has drawn up reference values for converting volume into weight. These are taken from Avfall Sverige's report "Volymvikter för avfall" (Volume weights for waste)[21]. The report presents different types of waste from different types of business. It must, however, be stressed that the supporting data is limited. Nevertheless, Nordic Ecolabelling judges that it is good enough to be used for stores that have to convert their general waste from volume to weight. Since food waste weighs more than other general waste, a distinction is drawn between these fractions. The reference values are as follows:

Food waste: 380 kg/m^3

Combustible waste: 120 kg/m^3

[21] Avfall Sverige: "Volymvikter för avfall", Rapport U2013:19

The calculation is conducted as follows:

The store's general waste in kg = Volume of general waste * ((proportion of food waste * 380) + (remaining proportion * 120))

Applicants must state the proportion of food waste in relation to other general waste so that the volume can be converted into weight. Nordic Ecolabelling approves rough estimates. If food waste is sorted as organic waste, the proportion of food waste is 0.

Example:

A store has general waste of 10 m^3 per million kroner in sales. Of this, the store states that half is food waste. The calculation is thus:

The store's general waste in kg = 10 * ((0.5 * 380) + ((1 - 0.5) * 120)) = 2500 kg/million kroner in sales

There is always a risk that use of reference values will not give a representative result for the store. Stores that cannot show measurements of general waste in weight can therefore weigh their general waste over two weeks that are representative of normal operation. The result is then multiplied by 12 to reach the amount of general waste for a whole year. If the store wishes to take such an approach, this must be approved by Nordic Ecolabelling.

For retail chains and internet stores comprising multiple units, the limit values must be met as an average for the units that are included in the application. Since it is a requirement that none of the units may exceed the maximum amount by more than 25%, the amounts must be given for each individual unit. The average is calculated by adding up the quantities and dividing by the chain's total sales.

O9 General waste

The store must not generate more general waste than is stated in the table below.

Retail chains and internet stores comprising multiple units must meet the requirement as an average at chain level. No store/unit may generate an amount of general waste that exceeds the obligatory index by more than 25%. This means that statistics must be stated for each store/unit.

	Iceland	**Denmark**	**Norway**	**Finland**	**Sweden**
Local currency	ISK	DKK	NOK	Euro	SEK
Amount of general waste in kg per million in sales in the local currency, excluding VAT	70	920	570	8,300	850

The amount of general waste is calculated as follows:

$$Amount\ of\ general\ waste = \frac{Amount\ of\ general\ waste\ in\ kg}{The\ store's\ total\ sales\ in\ millions\ in\ the\ local\ currency}$$

The amount of general waste is to be based on statistics from the past 12 months. By prior agreement, Nordic Ecolabelling may accept statistics for a shorter period, if the period is representative of normal operations, and if the requirement concerning the amount of general waste is met by a good margin.

If the store only has information on the volume of the general waste, rather than the weight, the volume can be converted to weight using the following formula:

The store's general waste in kg =

Volume of general waste * ((proportion of food waste * 380) + (proportion of other waste * 120))

If the store uses a waste compactor and the formula for weight calculation above, the calculated weight is multiplied by 4.

Alternatively, the store can weigh its unsorted waste over a period of two weeks that are representative of normal operations

General waste, in this context, means waste that is not sorted out for material recovery and recycling, and is thus sent for incineration or to landfill.

☒ State the amount of general waste in Nordic Ecolabelling's electronic application guide.

☒ If the store only has statistics for the volume of its general waste: State the volume of the general waste and the proportion of this that is food waste in Nordic Ecolabelling's electronic application guide.

☒ Upload documentation from the waste contractor confirming the data on the amount of general waste in Nordic Ecolabelling's electronic application guide.

P4 Little general waste

The store receives points as set out in the table below, if the amount of general waste is lower than the level set in the obligatory requirement. Retail chains receive points based on the chain's average amount of general waste as calculated in O9.

Points	Iceland	Denmark	Norway	Finland	Sweden
2	≤ 65	≤ 900	≤ 550	≤ 8,300	≤ 820
4	≤ 60	≤ 750	≤ 480	≤ 7,500	≤ 750
6	≤ 50	≤ 500	≤ 350	≤ 5,000	≤ 500
8	≤ 35	≤ 300	≤ 200	≤ 3,500	≤ 300

All figures are for the amount of general waste in kg per million in sales in the local currency, excluding VAT.

Nordic Ecolabelling's electronic application guide automatically calculates the number of points based on the information given in O9.

4.5.2 Waste sorting

4.5.1 above describes the justification for the requirement concerning waste sorting. In requirement P6, stores can earn up to 5 points if they sort their waste. 1 point is awarded per waste fraction. The fractions listed in the requirement are the most common fractions at a grocery store. If fractions are sorted together for later separation at the waste processing plant, this earns 2 points. In Norway, for example, glass and metal are sorted together and then separated out at a later stage. Such a system provides just as good a basis for material recovery as sorting glass and metal separately.

Retail chains are assessed as a whole unit. This means all the stores included in the chain licence must have a joint policy and practice on the number of waste fractions that are sorted.

P5 Waste sorting

Stores that sort out the following waste fractions are awarded 0.5 point per fraction (max 2 points):

Metal, hard plastic, soft plastic, paper, coloured glass, clear glass, wood, fats and oils, ceramics and batteries.

Retail chains and internet stores comprising multiple units are assessed as a whole unit. This means all the stores included in the licence must have a joint policy and practice on the number of waste fractions that are sorted.

✉ State in Nordic Ecolabelling's electronic application guide which waste fractions the store sorts out. Retail chains can state the fractions for all units in one go by stating with a cross that the selected categories apply for all the units included in the licence. Retail chains comprising of units that not necessarily sort out the same fractions, must list fractions for each store.

✉ Upload images showing sorting of the waste fractions in the store in Nordic Ecolabelling's electronic application guide.

4.5.3 Food waste

Food waste – a global environmental problem

Food waste can be defined as food that is discarded, but that could have been eaten if it had been handled differently. It occurs all along the food chain: at producers, at wholesalers, in transit, at grocery stores and in the home. Typical reasons for us discarding food that could in fact be eaten are that it is past its use-by date, that the food was stored incorrectly or that it was damaged in transit.

FAO reports that between a third and a half of all food produced is discarded[22]. Not only is this an ethical dilemma considering that so much of the world's population has too little food. Production of food and drink is also one of the leading causes of greenhouse gas emissions. The European Commission puts greenhouse gas emissions associated with the food chain at 17% of the EU's overall emissions[23]. In addition, the production of food and drink has consequences in terms of reduced biodiversity, water consumption, use of land and resources, and discharges of environmental toxins.

With a rapidly rising population, authorities the world over have realised that food waste is one of the key challenges on the path towards a sustainable society. In 2012, the European Parliament proposed a target of reducing food waste by 50% by 2025. The EU project FUSIONS (Food Use for Social Innovation by Optimising Waste Prevention Strategies) is working on the practicalities of enabling such a target to be reached, in part by harmonising food waste reporting. This is being run in collaboration with 21 project participants from universities, consumer organisations and businesses. The list of project participants includes several Nordic players: MTT, Østfoldforskning, the Swedish Institute for Food and Biotechnology, Stop Wasting Food, Communiqué and the Swedish Environmental Research Institute.

Food waste in grocery stores

The majority of food waste occurs in private homes. In Sweden, the Swedish Environmental Protection Agency estimates that as much as 65% of all food waste occurs in the home[24]. The same source states that grocery stores account for around 7% of food waste. But even though the grocery sector's contribution is small overall, we are still talking about large quantities of food that are discarded each year. One of the main reasons for the occurrence of food waste in grocery stores is the difficulty in ordering the right quantities of food. This can often lead to too much food being ordered and then not being sold before the use-by date. Another reason is that the stores wish to offer

[22] FAO: "Food wastage footprint-impact on natural resources", 2013
[23] www.eu-fusions.org/about-food-waste, 9 Feb 2015
[24] Naturvårdsverket: "Förslag till etappmål för minskad mängd matavfall". 2013

their customers a wide range of products – something that makes it even more difficult to order exactly the right quantity of goods. Most of the food waste relates to fruit and vegetables and bread. Fruit and vegetables are easily damaged, and customers will not choose apples or tomatoes with small blemishes. The financial incentive to order food according to customer demand is also not necessarily in place, since it often costs little to send goods back to the wholesaler/supplier.

In its study "Svinnreducerande åtgärder i butik" (Waste reducing measures in store), the Swedish Environmental Protection Agency evaluated six different measures that stores could implement to reduce their food waste. The measures were assessed in terms of both financial and environmental gains. Please refer to the report for the conditions that formed the basis for the individual calculations[25]. Note, however, that there is no proportional correlation between the weight of food saved under each measure and the associated CO_2 saving. This is due in part to the fact that different food products have a different impact on the climate.

Introduce a ceiling for refund claims on fruit and vegetables: Fruit and vegetables that do not meet the store's quality requirements are sorted out by staff and discarded. The store then receives a refund on the discarded food via a deduction on the next invoice from the wholesaler. Since the financial responsibility for refund claims lies with the wholesaler, there is a danger that the system leads the stores to try and reduce their costs through increased use of claims. If the store has even the slightest doubt about whether the food will be sold, it is discarded. By introducing a ceiling for refund claims on fruit and vegetables, such a trend can be broken and food waste reduced by 35 tonnes per store. That equates to 28 tonnes CO_2 equivalents per store.

Take food that cannot be sold and donate it to charity: Store staff could have a routine of going through food waste and sorting out food that is still edible. This could then be donated to charity. There are several organisations that accept and distribute food for charitable purposes. Donating food could prevent 30 tonnes of food from being discarded as waste. That equates to 46 tonnes CO_2 equivalents per store.

Increased intervention in automated ordering systems: Automated ordering systems are based on sales statistics, statistics of what is already in stock and an estimate of how long it will take for stocks to run out. However, the stores can also go in and adjust a set of parameters to optimise the ordering. These may include conducting inventories to ensure that the stock statistics are up to date or amending the conditions that form the basis for estimating how long it will take for the stocks to run out. Greater intervention in an automated ordering system could reduce food waste by 6 tonnes per store. That equates to 32 tonnes CO_2 equivalents per store.

Freeze and sell meat on the secondary market: There are stores that enter into a purchasing partnership with restaurants/catering businesses. When a meat product is nearing its best-before date, it is frozen in the store ready for collection by the restaurant. This measure could reduce the store's food waste by 230 kg. That equates to 4.7 tonnes CO_2 equivalents per store.

Introduce a moratorium on campaigns concerning fruit and vegetables. Studies show that waste tends to increase for campaign products and other products in the same product

[25] Eriksson, M., Strid, I.: "Svinnreducerande åtgärder i butik. Effekter på kvantitet, ekonomi och klimatpåverkan.", Naturvårdsverket, 2013

category during a promotional campaign. Introducing a moratorium on campaigns could reduce food waste by 650 kg. That equates to 580 kg CO_2 equivalents per store.

Sell frozen minced meat instead of fresh: Despite the high energy consumption associated with freezing the products, selling frozen minced meat could reduce the amount of food waste by up to 0.10 tonnes. That equates to 2.1 tonnes CO_2 equivalents per store. The effect varies depending on the type of minced meat. Niche products generate less food waste than products sold in bulk.

When it comes to determining which of the six measures above come out best in a cost-benefit analysis, increased intervention in automated ordering systems and sales of frozen meat on the secondary market stand out.

Justification for the requirements on food waste

Nordic Ecolabelling has not previously set requirements concerning food waste in grocery stores. One important reason has been the lack of supporting data and knowledge regarding the problem. With a greater focus in the industry and international initiatives to harmonise ways of measuring food waste, we now see an opportunity to set requirements in this area for the stores.

Different types of requirements could be set to reduce the quantity of food waste that occurs. The fundamental one is to set a requirement that the store must measure and record its food waste. This would make the stores more aware and lay a foundation for future improvements. The reporting of food waste alone, however, provides no direct environmental benefits.

Prescriptive requirements, on the other hand, can lead to reduced quantities of waste – which in turn reduces the environment impact. Examples of prescriptive requirements include a moratorium on campaigns for fruit and vegetables or a requirement that edible food should be donated to charity.

Nordic Ecolabelling has chosen to set an obligatory requirement for the measurement of food waste and a point score requirement rewarding various measures to reduce food waste. The points awarded for the individual measures reflect the effect that the measures are judged to have. This judgement is based to a large degree on the report "Svinnreducerande åtgärder i butik" as referenced above. At this point, it should be stated that not all the measures mentioned are possible to implement under current regulations. For example, it is not permitted to freeze food that is meant to be sold as fresh produce.

A store may also have food waste reduction measures other than those mentioned in the table in P6. Nordic Ecolabelling will assess other measures on a case-by-case basis and award up to 2 points on condition that the measure produces a significant reduction in food waste.

A store may measure its food waste in many different ways. Some stores, for example, include bread and bakery products, while others exclude these from the statistics because their supplier collects the products that have not been sold. And while some stores measure food waste in kg, others measure it in number of unsold products. Some stores also include loose goods that fall on the floor and register these as food waste, while others count them as damaged goods. There are many examples of how measurements vary from store to store. Note that the requirement concerning the measurement of food

waste applies to the store's visible food waste – i.e. the food waste that is discarded because it is too old or for some other reason cannot be sold to customers. Losses in the form of theft, administrative errors in the storage of goods, etc. are not counted as visible waste.

In autumn 2015 FUSIONS was expected to produce guidelines on how to measure food waste along the whole product chain. Guidelines on measuring food waste in grocery stores are also going to be issued. Until such guidelines are in place, it is difficult to set requirements concerning how the stores should take their measurements. It is, however, possible to set a requirement that the food waste must be measured and the data recorded – whatever the method of measurement. This is what Nordic Ecolabelling has chosen to do in this version of the criteria. We want the stores to be aware of how much food is discarded and to have a tool for assessing the effect of the various measures they put in place to reduce the amount of food waste.

O10 Measuring visible food waste

The store must measure the quantity of visible food waste that occurs. The store may choose whether the food waste is measured in quantity (kg), purchase value (SEK, EUR) or lost sales (SEK, EUR).

The store must report what is covered by the measurement of food waste. The question of whether rejected goods from wholesalers, bread and bakery products and bones and trimmings from the store's meat and fish counters are included in the measurement must be specifically addressed.

Statistics of the measurement results are to be compiled quarterly or more frequently. Nordic Ecolabelling may request the results as part of annual follow-up inspections.

Retail chains and internet stores comprising multiple units must measure their visible food waste using the same methodology for all the units covered by the licence.

Food waste is defined here as food that, at a certain point in time, could have been used as human food.

Visible food waste is that portion of the food waste that is discarded because it is too old or cannot be sold to customers for other reasons. Losses in the form of theft, administrative errors in the storage of goods, etc. are not counted as visible waste.

✉ Confirm that visible food waste is measured and compiled quarterly or more frequently in Nordic Ecolabelling's electronic application guide.

✉ State whether the food waste is measured in quantity (kg), purchase value (SEK, EUR) or lost sales (SEK, EUR) in Nordic Ecolabelling's electronic application guide.

✉ Upload documentation showing what the waste measurements cover in Nordic Ecolabelling's electronic application guide. The documentation must specifically state whether rejected goods from wholesalers, bread and bakery products and bones and trimmings from the store's meat and fish counters are included in the measurement.

P6 Measures for the reduction of visible food waste

The store earns points if the measures in the table below form a regular part of the operation. Retail chains and internet stores comprising multiple units must have implemented the measures in 90 % of all the stores covered by the licence in order to obtain points.

Measure	Points (max 10 points)
The store has a fixed agreement with a charitable organisation concerning the collection of food that cannot be sold.	5
The store uses fresh produce that is approaching its sell by date in the preparation of ready-made meals for sale	5

in-store or for serving to staff.	
The store sells food approaching its sell by date at a reduced price.	5
The store does not hold promotions that give a bulk discount on fruit and vegetables or chilled foods.	3
Other measures that give a significant reduction in food waste may earn points, subject to approval by Nordic Ecolabelling.	Max 2 points

☒ Retail chains must upload documentation showing which stores that have implemented the various measures.

☒ Upload an agreement with a charitable organisation for food collection to Nordic Ecolabelling's electronic application guide.

☒ State in Nordic Ecolabelling's electronic application guide whether the store systematically uses fresh produce that is approaching its sell by date in the preparation of ready-made meals for sale in-store or for serving to staff.

☒ Upload images of goods sold at a reduced price due to their expiring sell by date in Nordic Ecolabelling's electronic application guide.

☒ Declare in Nordic Ecolabelling's electronic application guide that the store does not hold promotions that give a bulk discount on fruit and vegetables or chilled foods.

☒ Upload documentation confirming other measures that have been taken and that have led to a significant reduction in food waste.

4.6 The store's use of goods and services

Operation of a grocery store involves the use of many different types of consumables. Examples include products for cleaning the premises, batteries, lighting, hand towels, toilet paper and stationery. Grocery stores are also purchasers of various services. Some stores employ cleaning contractors to clean their premises. Other services that stores buy in are the laundering of textiles and entrance mats, printing of marketing material and hotel nights.

Consumables are associated with environmental problems. For some products, the problems are associated with their production, while for others it is the actual use phase. And then there are those whose problems come in the disposal phase. As well as consumables being associated with environmental problems, they can also cause health problems – both in the production phase and the use phase.

Since the quantity of consumables used by the store is small compared with the quantity of goods sold to customers, Nordic Ecolabelling has judged that the relevance of setting requirements concerning the store's own use of goods and services is low. The potential for environmental gains varies a great deal from store to store, depending on the products and services they use. But since there are ecolabelled alternatives for many of the product categories that a grocery store needs, the potential is considered to be medium. Steerability, on the other hand, is high. The stores largely decide for themselves which products they wish to use.

Justification for requirement

Since steerability is high and it is important that a Nordic Ecolabelled grocery store practices what it preaches, Nordic Ecolabelling sets requirements concerning the consumables and services that are bought in. Within selected categories, Nordic Ecolabelled stores must have a high proportion of ecolabelled goods and services.

Several stores meet some of their need for consumables by using damaged goods (rejects). Nordic Ecolabelling feels that it is better for damaged goods to be used than discarded. Rejects are therefore not included when calculating the amount of ecolabelled consumables that the store uses.

A Nordic Ecolabelled supplier of cleaning services is subject to strict requirements concerning the amount of ecolabelled products used during the cleaning. Points are therefore awarded for ecolabelled cleaning products, for those stores that purchase Nordic Ecolabelled cleaning services.

Nordic Ecolabelling has chosen not to set requirements concerning those consumables that cannot be ecolabelled. This applies, for example, to plastic film for packaging fresh produce and plastic gloves. It also applies to various types of durable products for cleaning, such as cleaning tablets for ovens and certain disinfectants. The reason we do not set requirements for these products is a combination of the stores needing such consumables and the fact that there are not necessarily any alternatives on the market that are better for the environment.

O11 Ecolabelled consumables and services

The store must earn at least 5 points from the table below for the use of ecolabelled consumables and services. There is no obligatory requirement for Icelandic stores.

Retail chains are assessed as a whole unit. This means all the units in the chain must have a joint policy on the products in the table below and are awarded points accordingly.

Consumables ≥ 90% of purchase volume in each category	**Points**
Cleaning products: Floor cleaner, disinfectant, general-purpose cleaner, dishwasher detergent, washing-up liquid, hand soap and microfibre cloths and mops	3
Paper products: Toilet paper, paper towels and office paper	2
Textiles: Workwear	2
Services ≥ 90% of purchase volume in each category (unless otherwise stated)	
Laundering workwear (≥ 90% of garment numbers - a rough estimate is permitted)	2
Laundering entrance mats	2
Cleaning services (≥ 90% of the total store area)	4
Hotel accommodation	1
Printed material	1

If the store uses Nordic Ecolabelled cleaning services, no additional points are given for ecolabelled cleaning chemicals.

Ecolabelled, in this context, means products and services that carry the Nordic Ecolabel, the EU Ecolabel or the Bra Miljöval (Good Environmental Choice) label.

Damaged goods are not included in the calculation of purchase volume.

✉ State the product name and licence number of the ecolabelled products that the store uses in Nordic Ecolabelling's electronic application guide. Retail chains comprising of units that not necessarily use the same products, must list purchased products for each store.

✉ State the company name and licence number of the supplier of the ecolabelled services that the store purchases in Nordic Ecolabelling's electronic application guide. Retail chains comprising of units that not necessarily use services from the same providers, must list purchased services for each store.

4.7 Overall point score requirement

The points that can be earned in P1–P6 are weighted according to the level of relevance, potential and steerability in the respective requirements. The starting point is that the product range, energy consumption and waste, including food waste, form the three cornerstones of this criteria document and as such they earn an equal number of points.

In all, a store can earn 60 points. The requirement that a store must earn at least 25 points has been set based on Nordic Ecolabelling's experience and knowledge of the industry. During the consultation, the requirements will be tested at a number of pilot stores. An essential part of the work will be to check that the overall point score requirement fulfils its function – namely to separate out the best grocery stores from an environmental perspective.

O12 The store's points total

The store must earn at least 25 points. The table shows how many points are available for the various point score requirements.

Requirement	Requirement title	Max points
P1	Higher sales of organic products and products from sustainable fishing	10
P2	Higher sales of ecolabelled consumables	10
P3	Good energy efficiency	20
P4	Little general waste	8
P5	Waste sorting	2
P6	Measures for reducing food waste	10
Max points total		60

The points total is calculated automatically in Nordic Ecolabelling's electronic application guide.

Note that requirement O11 is an obligatory requirement and as such is not included in the points summary above.

5 Changes compared to previous version

This chapter describes the changes that have been made compared with version 2 of the criteria for grocery stores. Section 5.1 provides a "translation key" summarising the differences between version 2 and version 3. The aim of this is to make it easy for everyone familiar with our earlier versions of the criteria to see what requirements have been deleted, what have been kept, what have been reworked and what are new. Section 5.2 describes in more detail why requirements have been reworked or deleted.

5.1 Translation key between versions 2 and 3

Table 5 shows what has happened to all the requirements in the transition from version 2 to version 3.

Table 5: Translation key between versions 2 and 3

Req. version 2	Requirement title	What has happened?	Reason for change	Req. version 3
O1	Description of the store	Reworked	Deleted from the criteria, but forms the basis for the setting up of an application in Nordic Ecolabelling's electronic application guide.	
O2	Point score	Reworked	A new method for setting product range requirements has been introduced.	O5
O3	Clear display of ecolabelled and organic products	Deleted	The requirement was considered superfluous following the introduction of a new product range requirement.	
P1	Points for product range	Reworked	The requirement has been updated in line with the new product range requirement.	P1
P2	Monitoring of sales of organic/ecolabelled products	Reworked	The requirement has been made obligatory under the new product range requirement.	Now forms part of O5
P3	Active chlorine	Deleted	Requirement deleted due to poor steerability.	
P4	Biocides	Deleted	Requirement deleted due to poor steerability.	
P5	PVC	Deleted	Requirement deleted due to poor steerability.	
P6	Fish	Reworked	IUCN's list is used instead of WWF's.	P2
O4	Energy efficiency and reporting energy consumption and TEWI	Reworked	The requirement has been simplified and the requirement concerning the store's total equivalent warming impact has been deleted. The reason for this is the low potential, since most of the energy consumed in a store is electricity.	O8
O5	Lighting	Deleted	The energy efficiency requirement is judged to be sufficient.	
P7	Evaluation of energy consumption	Reworked	The requirement has been updated in line with the reworked energy requirement.	
P8	Evaluation of TEWI	Deleted	See O4	
P9	Monitoring of energy consumption (max. 4 p)	Deleted	Requirement deleted due to poor steerability.	
O6	Covered refrigerator and freezer counters	Deleted	The energy efficiency requirement is judged to be sufficient.	
P10	Refrigerant (max. 1.5 p)	Deleted	New EU Directive is considered to have a sufficient steering effect.	
O7	General (unsorted) waste	Amended	The limit value has been amended.	O9
O8	Sorting at source of store waste	Deleted	Requirement deleted due to low relevance.	
O9	Sorting at source of customer waste	Deleted	Requirement deleted due to low relevance and poor steerability.	
P11	General (unsorted) waste	Amended	The point limits have been amended.	P5
P12	Sorting at source	Amended	The waste fractions have been evaluated and amended.	P6
P13	Sorting at source of customer waste	Deleted	Requirement deleted due to low relevance and poor steerability.	
P14	Organic waste	Deleted	The general waste requirement has a sufficient steering effect.	
O10 \ P15	Transport and distribution	Deleted	Requirement deleted due to poor steerability.	
P16	Carriers – road goods	Deleted	Requirement deleted due to poor steerability.	
P17	Fuel for trucks	Deleted	Requirement deleted due to poor steerability.	
P18	Refrigerant in refrigerator and	Deleted	New EU Directive is considered to have a	

	freezer trucks		sufficient steering effect.	
P19	Charging station for electric vehicles	Deleted	Requirement deleted due to poor steerability.	
O11	Ecolabelled products	Reworked	The requirement has been merged with several other requirements.	O11
O12	Plastic film and plastic disposable gloves	Deleted	Requirement deleted due to poor steerability for plastic film. Requirement deleted due to low relevance for gloves.	
O13	Cleaning agents	Deleted	Requirement deleted due to low relevance.	
P20	Disposable plastic gloves	Deleted	Requirement deleted due to low relevance.	
P21	Plastic film	Deleted	Requirement deleted due to poor steerability.	
P22	Cleaning without chemicals	Deleted	Requirement deleted due to low relevance.	
P23	Fittings, fixtures, consumables and services	Reworked	The requirement has been merged with several other requirements.	O11
P24	Printed advertising	Reworked	The requirement has been merged with several other requirements.	O11
O14	Environmental policy	Deleted	Requirement deleted due to poor steerability.	
O15	Environmental targets and action plan	Deleted	Requirement deleted due to poor steerability.	
O16	Organisation and responsibility	Reworked	The requirement has been simplified.	O4
O17	Regulatory requirements	Deleted	Compliance with regulatory requirements is covered on the application form.	
O18	Follow-up	Reworked	The requirement has been simplified.	O3
O19	Maintenance	Deleted	The energy efficiency requirement is considered to be sufficient.	
O20	Information to staff regarding the store's environmental status	Deleted	Requirement deleted due to low potential.	
O21	Customer communication	Deleted	Requirement deleted due to low relevance.	
O22	Sales direction	Deleted	Requirement deleted due to poor steerability.	
O23	Marketing	Deleted	Compliance with Nordic Ecolabelling's marketing rules is covered on the application form.	

5.2 Justification for the changes to the requirements

This section provides a more detailed commentary on why certain requirements have been reworked or deleted. The requirement numbering refers to version 2 of the criteria for grocery stores.

O1 Description of the store

Information about the store that is relevant to the application is now dealt with outside the criteria. Instead, the store must provide information on a number of factors when completing the application in Nordic Ecolabelling's electronic application guide.

O2 Point score

Nordic Ecolabelling has chosen to completely rework the requirements concerning the range of organic and ecolabelled products. Version 2 required the store to have a certain product range on the shelves. In version 3 the requirements focus instead on the proportion of organic and ecolabelled products that the store sells. A broad range in itself brings no environmental benefits. High sales, on the other hand, do.

O3 Clear display of ecolabelled and organic products

Clearly signing organic and ecolabelled products was one of the key requirements in version 2, since the product range requirements were based on breadth of range rather than actual sales. Since in version 3 Nordic Ecolabelling has chosen to set requirement concerning the proportion of organic and ecolabelled products the store sells, clear signage to drive sales of these products is obsolete. Nordic Ecolabelling assumes that the stores will choose to sign organic and ecolabelled products in order to maintain the proportion of sales and in this way ensure that the product range requirements are complied with throughout the entire validity period of the licence.

O4 Energy efficiency and reporting energy consumption and TEWI

The requirement has been simplified and some elements have been deleted. The changes are as follows:

- Version 2 had a requirement for both energy consumption (expressed as primary energy) and emissions of carbon dioxide (expressed as total equivalent warming impact – TEWI). But since grocery stores primarily meet their energy need using electricity, there is a covariance between the results in these two areas. It is only when the stores have major emissions of refrigerants that the covariance between the store's results in energy consumption and carbon emissions disappears. Refrigerants with high GWP values will now be phased out gradually over coming years under a new EU directive. There is therefore no point in having a requirement concerning carbon emissions. Using the same argument, there is also no point in converting energy consumption into primary energy. Nordic Ecolabelling understands that these simplifications may put certain applicants in a worse position – for example some stores with district heating. But since the steerability over the choice of energy system is often poor, we still believe we are justified in removing primary energy factors and the carbon emissions requirement.
- In version 2 it was assumed that all display chillers were covered whenever the store was closed to customers, minus 1 hour. In version 3, the calculations assume that the store has covers on all display chillers and freezers 24 hours a day. The change in how much of the day the display chillers are assumed to be covered means that the stores must be around 10% more energy efficient. In addition, the number of display chillers and freezers that the applicant is asked to measure the length of has been reduced from 8 to 7.
- In version 2, the calculations assumed energy consumption of 4 kWh per portion if the store produces pre-prepared food. Experience has shown that this figure is too generous, making it easier for stores that prepare large amounts of food to meet the limit value. In version 3 we therefore use 2.6 kWh per portion as the reference value. This figure is in line with the Swedish STIL survey.

P9 Monitoring of energy consumption

Nordic Ecolabelling believes the requirement concerning the store's energy efficiency has a sufficient steering effect on the store's use of energy. When it comes to renewable electricity, there is no evidence that the system of buying and selling certificates for renewable energy provides a better supply of energy from renewable sources. Instead of

applicants spending money on buying certificates, Nordic Ecolabelling would instead like to see them invest in measures that actually reduce energy consumption. It is here that the greatest environmental gains are to be made. The requirement has therefore been deleted.

O6 Covered refrigerator and freezer counters

In the calculation of the store's index for energy efficiency, version 3 includes a condition that all display chillers and freezers must be covered. The requirement is therefore superfluous and has been deleted from the criteria. This makes things simpler for applicants, who no longer need to document the coverage of their plug-in displays and counters.

P10 Refrigerant

Version 2 awarded points to stores that use refrigerants with low GWP values. From 2017, the supply of refrigerants with high GWP values will be limited due to an imposed quota system. From January 2020, there will be a ban on recharging with such refrigerants. In practice, this entails a general ban on their use, since the systems leak and must regularly be recharged. Nordic Ecolabelling realises that the requirements for the Nordic Ecolabel will not be the driving force behind developments over the coming five years. The requirement has therefore been deleted.

O8 Sorting at source of store waste

The previous requirement concerning signage of the store's internal waste sorting was of a more symbolic nature. The aim of the requirement was to promote good sorting, but said nothing about how much waste was actually sorted. Nordic Ecolabelling believes the requirement concerning how much general waste the store may have is a sufficient driver of waste sorting. The requirement has therefore been deleted.

O15/P15/P16/P17/P18/P19 Various transport and distribution requirements

Version 2 set a number of requirements concerning the transport of goods to the stores. Nordic Ecolabelling has deleted all these in version 3 since the stores have limited steerability over how and by which means the goods arrive at the store. Compared with the other environmental impacts from grocery stores, Nordic Ecolabelling also believes the relevance of inward transport is low. When it comes to outward transport, the stores have a total lack of steerability. The only exception here is for internet stores that deliver goods to customers and therefore have their own vehicles. Here, steerability is high. But since neither the relevance nor the potential are particularly great, Nordic Ecolabelling has chosen not to set transport requirements in version 3.

O18–O23 Various environmental management requirements

In previous versions of the criteria, Nordic Ecolabelling has set numerous requirements concerning the store's environmental management. These have covered everything from a requirement that the store must have an environmental policy to a requirement concerning information for staff on the environmental status of the store. Most of the requirements have been deleted in version 3. The reason for this is that the requirements have not functioned as Nordic Ecolabelling intended. In many cases, we have seen the requirements lead to greater bureaucracy – and not to any actual environmental gains. An important principle during the revision of version 2 was that requirements that produce no actual environmental effect should be deleted. Instead, it was important to retain the requirements that were key to ensuring compliance with the Nordic Ecolabel's

requirements throughout the entire validity period of the licence: a requirement for annual reporting and a requirement that the store must have one person who is responsible for the licence and one who is a contact person for Nordic Ecolabelling.

6 New criteria

In the next revision, the work will focus on the potential to tighten:

- the requirement concerning organic and ecolabelled products as a proportion of total sales
- the requirement for energy efficiency
- the requirement concerning general waste
- the requirement concerning measurement of food waste and measures that can be implemented to reduce the quantity that is generated
- the overall requirement concerning how many points the store must earn in total

The market for organic food and drink and ecolabelled products is constantly changing. It is therefore important to reassess the requirement limits when revising the criteria.

Version 2 gave us experience in setting requirements for energy efficiency and general waste amounts. We therefore know that the methods work as intended. The requirement limits must, however, be reviewed to ensure that the requirements weed out the poorest stores in the market.

If the requirement limits for the obligatory requirements are amended, the limits for the associated point score requirements will also have to be correspondingly amended.

Finally, in the next revision we will consider the possibility of setting an obligatory requirement concerning the quantity of food waste that is generated. This assumes that there are guidelines on how food waste should be measured.

Terms and definitions

Term	Explanation or definition
Sustainable fishing	Sustainable fishing is fishing certified to a standard approved by Nordic Ecolabelling. The requirements set by Nordic Ecolabelling concerning standards and certification schemes are stated in Appendix 1.
Groceries	In this context, groceries are defined as goods that are expected to be consumed or used within a limited period. Foodstuffs, sanitary products, household articles and cleaning agents are examples of goods that count as groceries.
Consumables	Consumables, in this context, are defined as everyday groceries that are not food or drink. Another common term for this group of products is "non-food daily".
Energy efficiency index	In this context, refers to a value that indicates how energy efficient a store may be considered to be. The index value is calculated in Nordic Ecolabelling's electronic application guide.
Internet store	A grocery store that the customer can only visit via an internet site.
Warehouse	In this context, refers to the premises where the internet store keeps the goods before they are picked.
Food waste	Food waste is defined here as food that, at a certain point in time, could have been used as human food. The definition therefore does not include bones, shells, peel and production residues that cannot normally be eaten by humans.
Ecolabelled products	Ecolabelled, in this context, means products that carry the Nordic Ecolabel, the EU Ecolabel or the Bra Miljöval (Good Environmental Choice) label.
Picking of goods	Refers here to the point when goods ordered via a website are picked to fulfil the customer's order.
General waste	General waste, in this context, means waste that is not sorted out for recycling, and is thus sent for incineration or to landfill. Waste that is sorted out specifically for incineration or landfill also counts as general waste.

Durable products	Durable products, in this context, means products that are not groceries. Another common term for this group of products is "non-food".
Visible food waste	
Organic food and drink	In this context, organic food and drink means products that are labelled according to EU regulations (EC) No 834/2007 and (EU) No 203/2012, for example KRAV, Finland's "Sun-label" Luomu, Debio, the Danish state-controlled Ø-mærket and Tún-lífrænt.

Appendix 1 List of goods considered to be consumables

The table below specifies what counts as consumables. If an item is not on the list, it is to be considered a durable product. The case officer should be able to help determine whether something is a consumable, if required.

Babies and children	Care products: Hair, shower, bath, skin, mouth, oils
	Nappies
	Wet wipes, dry wipes, baby wipes
	Breast pads
	The following do not count as consumables: pacifiers, baby bottles, children's cutlery and plates, bibs
Paper	Kitchen paper, toilet paper, paper towels
	Paper handkerchiefs
	Serviettes
	Office paper
	Notepads, refill pads
	Reading matter: Books, newspapers, magazines
	Envelopes
	Coffee filters, tea filters
	The following do not count as consumables: drawing and colouring books, receipt books
Chemicals	Laundry: Detergent, softener, stain remover, bleach
	Washing-up: Dishwasher detergent, dishwasher cleaner, washing-up liquid, rinse aid
	Cleaning: General cleaner, toilet cleaner, disinfectant, oven cleaner, hob cleaner, steel wool, polish, floor cleaner, floor care, drain cleaner, air freshener
	The following do not count as consumables: Insect repellent
Cleaning equipment	Sponges, dishcloths, washing-up brushes, buckets, cloths
	Microfibre: Cloths and mops (incl. accessories)
Hygiene	Intimate hygiene: Sanitary towels, tampons, panty-liners, incontinence pads, contraception
	Skin and hair: Hand soap, shampoo, conditioner, shower gel, intimate hygiene soap, bath salts, bubble bath, hair treatments, styling products, hair dye, hair toner, perm, hair oil, hair removal, face wash, cream, foot care, sun cream
	Oral care: Toothpaste, toothbrushes, mouthwash, toothpicks
	Cotton wool: Cotton buds, cotton wool
	Wet wipes
	Deodorant
	Shaving: Foam, cream, aftershave, razors, razorblades
	Cosmetics:
	The following do not count as consumables: plasters
Bags	Waste bags, rubbish bags
	For the customer to carry shopping home in: Plastic bags and paper

	bags, shopping nets
Disposable items	Tableware: Glasses, cups, plates, cutlery, paper tablecloths
	Cooking: Baking parchment, muffin cases, grease-proof paper, waxed paper, plastic film, aluminium foil, freezer bags, bread bags
Candles	Taper candles, block candles, scented candles, graveyard candles, birthday candles
Other	Barbecue charcoal, barbecue briquettes
	Batteries: Disposable batteries, rechargeable batteries, button cell batteries (incl. those sold with a charger)
	Lighting: Lightbulbs, low-energy bulbs, LED's, fluorescent bulbs, halogen bulbs
	Garden products: Plants, flowers and compost

Appendix 2 Nordic Ecolabelling's guidelines on standards and certification schemes for fish and shellfish

Nordic Ecolabelling sets requirements regarding standards for the certification of fish and shellfish. The requirements are listed in this document and are updated on an ongoing basis. Each standard and certification scheme is checked by Nordic Ecolabelling to ensure compliance with the requirements.

General requirements regarding standards for sustainability labelling of fish and shellfish

The following requirements apply for both wild-caught fish and farmed fish:

- The standard must follow all relevant laws and agreements and comply with the conventions and guidelines of the FAO and the UN:
- - The 1982 UN Convention on the Law of the Sea
- - The 1995 UN Fish Stocks Agreement
- - FAO Guidelines for the ecolabelling of fish and fishery products from marine capture fisheries
- - FAO's Technical guidelines on aquaculture certification
- - FAO Code of Conduct for Responsible Fisheries
- The standard must balance economic and ecological interests. The standard must be developed in an open process in which ecological, economic and social stakeholders have been invited to participate. This means that at the very least there must be a public consultation during development of the standard.
- The standard and documents related to the standard must be publicly available.
- The standard is evaluated and revised on a regular basis so that the process is developed and the environmental impact reduced on an ongoing basis.
- Nordic Ecolabelling places particular emphasis on the standard having absolute requirements that guard against illegal fishing and destruction of biodiversity.

Requirements regarding standards for wild-caught fish and shellfish

- The standard must have criteria stating that the fished stocks must not be overfished and that they are to be preserved at a level that promotes the goal of optimum exploitation over the long term.
- Assessments of fish stock status and trends, and the impact of the fishing on surrounding ecosystems, are to be based on adequate and scientifically relevant data and information.
- The standard must require consideration of ecosystems, i.e. assessment of the negative effects of the fishing.
- The standard must contain a requirement aimed at minimising bycatch/discards. This may be fulfilled through a risk assessment.

Requirements regarding farmed fish and shellfish

- The standard must contain criteria concerning environmental aspects that ensure sustainable farming, which includes requirements on fishing for feed purposes.
- The standard must set requirements concerning animal health and welfare.
- The standard must set requirements concerning food safety.

Requirements regarding certification schemes and certification bodies

- The certification scheme must be transparent, have broad national or international credibility, and be able to verify that the requirements of the standard are met.
- The certification body must be impartial and trustworthy, i.e. certification must be carried out by an accredited, competent third party
- The certification scheme must be suitable to verify that the requirements of the standard have been met. The method used in certification must be replicable and applicable for fishing and farming. Certification must primarily take place in accordance with a specific standard.
- Checks must be carried out on the standard of the fishery/farm before the certificate is issued.
- The certified fishery/farm must be checked/audited on a regular basis.

Requirements regarding CoC (Chain of Custody) certification

A requirement for CoC may be set if the requirements laid down by the authorities require supplementing:

- The products must be traceable throughout the production chain and labelled with at least the catch zone, trade name (scientific name) and production method (farmed/wild) (ref.: Regulation 104/2000/EC which only applies to non-processed products).
- Chain of Custody certification is to be carried out by an accredited competent third party, as is the requirement for certification of the fishery.
- The system must set requirements for the CoC chain guaranteeing traceability, documentation and checks throughout the production chain.

Documentation

- Copy of standard.
- Contact information (name, address and phone number) for the organisation that developed the standard and drew up the audit report.
- Reference details for people representing parties and interest groups who were invited to take part in the development of the standard.

Note that Nordic Ecolabelling may require additional documentation in order to assess whether the requirements concerning standards and certification schemes are met.

Appendix 3 Description of the energy tool and how the energy index is calculated

To assess the store's energy efficiency, Nordic Ecolabelling uses a calculation method that can be described in simple terms as follows: A unique ideal value is calculated based on parameters that represent the store's unique circumstances. The ideal value represents how much energy the store optimally ought to have used if energy saving measures had been applied to every part of the business. The kWh of the ideal value is then compared with the store's stated actual energy use in kWh. The difference between the ideal value and the actual energy use is the store's energy efficiency. Below is a more detailed description of how the calculations work in what Nordic Ecolabelling calls its energy tool.

Assumptions and parameters in the calculation of the store's ideal value

To calculate the store's ideal value (also called a target value), a number of assumptions are made about the operation of the store. Firstly, the technical installations are assumed to be modern but not the very best. These technical installations are also assumed to function properly. The store's refrigeration and freezer units are assumed to be covered 24 hours a day.

The calculation of the store's ideal value takes account of the following parameters:

- The floor area of the store, including offices and warehouse: This is the store's internal floorspace. If the premises are rented, the store states the area for which the store pays rental. Warehouses and loading bays that have no heating or cooling should not be included in the area.
- The floor area is used to calculate what energy use the store should have for lighting, ventilation and heating.
- Annual average temperature according to www.smhi.se, www.fmi.fi, www.met.no, www.dmi.dk
- No. of portions of food the store prepares: The food must have been prepared using heat, but may be sold chilled. If food is sold loose, the store may calculate the number of portions based on what a regular portion weighs.
- The length in metres of the display chillers and freezers: Both fixed installations and plug-in displays should be included. The energy tool differentiates between the following types of refrigeration and freezer units:
  - Display chillers taller than 1.7 metres (5/6 shelves)
  - Display chillers lower than 1.7 metres (3 shelves)
  - Serve over counters and single level chillers
  - Chest display chillers
  - Display freezers taller than 1.7 metres
  - Combi freezers (upright and chest)
  - Chest display freezers
  - Other: State the refrigeration or freezer unit's ISO 2 figure
- No. of chiller and freezer rooms and their floor area

- Size in m2 of doors to bakery ovens
- Size in m2 of the chicken roasters

Annual energy use in the store

The store should state its annual purchase and sale of energy. This entails:

- The amount of electricity purchased: The easiest way to document this is with a copy of the invoice or a screenshot from the store's supplier. The documentation must clearly show that the invoice includes usage over the past 12 months. It must also state who supplies the electricity.
- The amount of district heating purchased: The easiest way to document this is with a copy of the invoice or a screenshot from the store's supplier. The documentation must clearly show that the invoice includes usage over the past 12 months. It must also state who supplies the district heating.
- Other energy purchases: If other forms of energy such as oil or gas are used, this must also be stated. As with electricity and district heating, this is most easily documented with copies of invoices or, if appropriate, a reading of the amount of consumption over a given measurement period.
- The amount of energy that has been passed on for use by another tenant: There should be a meter showing how much energy has been passed on so that it can be deducted from the store's figure for amount of energy purchased.
- Energy produced on the premises without passing through the public electricity grid does not need to be included in the calculation. Examples of this include energy from solar panels and solar collectors.
- The store must state whether the energy figures above include energy for the operation of ventilation and for heating. If they do not, standard values for this will be added to the stated energy consumption.

Individual stores: The ratio between the ideal value and actual use

The way the energy tool calculates the store's energy efficiency, based on the ideal value and the store's reported energy use, can be illustrated in the following example:

The store's energy use is 150,000 kWh. The calculated ideal value is 100,000 kWh. The ratio is thus 150,000/100,000 = 1.5

The store in the example above uses 50% more energy than it should according to the energy tool. It therefore has an energy efficiency of 1.5.

Retail chain: The ratio between the ideal value and actual use

When calculating the average for a retail chain, it is important that a small store with very good energy efficiency does not have too great an impact in comparison with larger stores in the same chain with poor energy efficiency. The energy tool therefore calculates the chain's average based on a weighting of the ideal values for the different stores. We can illustrate this with the following example:

	Store 1	Store 2
Ideal value in kWh	1,000,000	1,100,000
Actual consumption in kWh	1,500,000	1,600,000
Energy efficiency	1.50	1.45

By adding a weighting of the individual stores' ideal values into the calculation of the average for the chain, the chain achieves the following energy efficiency:

∑ideal values / ∑actual consumption = (1,000,000 + 1,100,000)/(1,500,000 + 1,600,000) = 1.48

Internet stores comprising several units shall be calculated in the same way as for retail chains.