About Nordic Swan Ecolabelled

# Cleaning of liquid damaged electronics

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Nordic Ecolabelling

# Content



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

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# Contact info

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

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# 1 Summary

Cleaning liquid damaged electronics has a positive impact on the environment, since instead of ending up as e-waste, the damaged electronic device is returned to the user. This avoids the production of a new device to replace the liquid damaged electronics, which in turn saves on both energy and raw materials that would have been used to manufacture the new device.

Although saving the electronics and bringing them back into use provides by far the greatest environmental gain, the Nordic Swan Ecolabelled service must also be as gentle on the environment and people as possible. Therefore, we apply a number of additional energy and environmental requirements to the process – including requiring that all the chemical products used must be ecolabelled. Nordic Swan Ecolabelling further ensures that the electronic parts that are replaced, or the electronic devices that cannot be saved, are handled responsibly in the waste phase.

For the cleaning of electronic devices to work, and to ensure that new products are not purchased instead, the service should be fast and provide a good success rate. Customers will then be very pleased and see this as a qualitatively good alternative to discarding their device and buying a new one.

Typically, devices are sent for cleaning and repair via insurance companies and private customers. The insurance company contacts the workshop on behalf of its customer, who has a damaged product.

Cleaning of liquid damaged electronics is still a relatively new area, but provision of the service is growing. Its clear environmental credentials justify its backing by Nordic Ecolabelling, and the Nordic Swan Ecolabel is a mark of quality and assurance that the cleaning technique is effective and does not have any undesirable environmental side-effects.

# 2 Basic facts about the criteria

### Products that may be Nordic Swan Ecolabelled

These criteria provide for the Nordic Swan Ecolabelling of a service that cleans and saves liquid damaged electronics such as laptops, tablets, mobile phones and smart phones and -watches. The service may be limited to only certain types of electronic products (for example, laptops only). The cleaning process may be manual, semi-manual or fully automated. The service is counted from the time the business receives the liquid damaged electronic device, until the device is cleaned and dried, any corrosion has been stopped and the product is ready to be returned to the customer.

This generation of the criteria does not include requirements regarding any transport included in the service.

### Motivation for Nordic Swan Ecolabelling

Cleaning liquid damaged electronics so that they work again has a positive impact on the environment since, instead of ending up as e-waste, they are directly returned to the eco cycle. This avoids the production of a new device to replace the liquid damaged electronics, which in turn saves on both energy and raw materials that would have been used to manufacture the new device. It also avoids using resources to process the electronic device as electronic waste. With modern electronics, energy

consumption in the use phase is not what most affects the environment. The consumption of energy and scarce resources during manufacture, and the processing of the devices after use, on the other hand, are incredibly significant[1, 2, 3], which is why the environmental gain from bringing electronics back into use is so great.

For the cleaning of electronic devices to work, and to ensure that customers do not buy a new product instead, the service should be fast and provide a good success rate. The customers will then be very pleased and see this as a qualitatively good alternative to discarding their device and buying a new one. A good proportion of the cleaning must thus result in the electronic device working satisfactorily again. Similarly, the time between handing in and collecting/getting back the device must not be too long. Finally, it is important to ensure that any corrosion is stopped, so that the liquid damage does not have any later consequences.

Although saving the electronics and bringing them back into use provides by far the greatest environmental gain, the Nordic Swan Ecolabelled service must also be as gentle on the environment and people as possible. This is why a number of additional energy, and environmental requirements are also applied to the process – including requiring that all the chemical products used must be ecolabelled. No chemicals such as pure organic solvents may therefore be used in a Nordic Swan Ecolabelled process. There must also be no use of chemicals that might create a poor working environment or have an unnecessarily high environmental impact.

As a supplier of the service “cleaning of liquid damaged electronics”, you have influence over how effective and environmentally harmful the cleaning is through your choice of process/technology and chemicals.

Nordic Swan Ecolabelled cleaning of liquid damaged electronics:

- Has a good success rate and ensures a fast service
- Involves limited use of energy and water
- Only uses ecolabelled removal and cleaning agents
- Ensures the correct handling of electronic waste

**The version and validity of the criteria**

Nordic Ecolabelling adopted version 2.0 of the criteria for cleaning of liquid damaged electronics on 13 November 2024. This version will apply until 31 October 2029.

# 3 The Nordic market

Manufacturers/suppliers of cleaning machines used to clean electronics make their machines available to workshops that repair damaged electronics. The workshops

[1] Zink, T., Maker, F., Geyer, R. & Amirtharajah, R. (2014): Comparative life cycle assessment of smartphone reuse: Repurposing vs. refurbishment. https://www.researchgate.net/publication/260338005_Comparative_life_cycle_assessment_of_smartphone_reuse_Repurposing_vs_refurbishment

[2] Ciroth, A. & Franze, J. (2011): LCA of an Ecolabeled Notebook, Considerations of Social and Environmental Impacts Along the Entire Life Cycle. https://www.greendelta.com/wp-content/uploads/2017/03/LCA_laptop_final.pdf

[3] Hoang, A., Tseng, W., Viswanathan, S. & Evans, H. (2009): Life Cycle Assessment of a Laptop Computer and its Contribution to Greenhouse Gas Emissions. https://www.researchgate.net/publication/268414508_Life_Cycle_Assessment_of_a_Laptop_Computer_and_its_Contribution_to_Greenhouse_Gas_Emissions

pay for the successful cleaning processes, where the cleaning results in the electronics once again being fully functional and ready for return to the end user.

Typically, devices will come in for repair from insurance companies and private customers. The insurance company contacts the workshop on behalf of a customer who has a damaged product. In this case, the success rate will be determined by how many units can be repaired within the set budget. Private customers are customers who do not have insurance cover for their electronic device. Such customers will contact the workshop directly.

Cleaning of liquid damaged electronics is still a relatively new area. At this time, only a few cleaning machines are available at workshops in the Nordic region, and the number of cleaned electronic devices only runs to a few thousand per month in this territory. This is, however, a growth market, not only in the Nordic region but across Europe, and in other parts of the world.

The global trend currently is for declining sales of personal electronic devices such as laptops and tablets[4], which suggests that the market is saturated. It is reasonable to assume that this trend is greater in the more developed parts of the world (such as the Nordics), since the less developed countries are expected to continue growing. The decline in sales of electronic devices is explained in part by the fact that the products do not require updating as regularly as they used to.

This trend means that more people will be interested in getting their devices repaired, since this is usually cheaper than replacing them – and the data on the devices is not lost.

**The environment as a competitive factor**

Cleaning of electronics is obviously a eco-friendlier solution than buying a new replacement, but suppliers of this service believe that it will still be beneficial for their technology to carry the Nordic Swan Ecolabel.

The ecolabel is a clear marker of the environmental gains that are achieved when a laptop can be cleaned instead of a new one having to be purchased.

It is, however, important that the Nordic Swan Ecolabel also serves as a quality assurance that the cleaning technology is effective and does not have any undesirable side-effects.

# 4 Other labels

As far as Nordic Ecolabelling is aware, there are no official ecolabels or ecolabelling schemes for the cleaning of liquid damaged electronics.

# 5 Aim of developing the criteria

The main purpose of developing these criteria is for Nordic Ecolabelling to help promote the eco-friendly service of saving electronic devices and thus giving them a longer lifetime and avoiding production of new electronics. This is a prime example of

[4] Statista, 2018: Shipment forecast of laptops, desktop PCs and tablets worldwide from 2010 to 2022 (in million units). https://www.statista.com/statistics/272595/global-shipments-forecast-for-tablets-laptops-and-desktop-pcs/

how the Nordic Swan Ecolabel can support a circular economy by ensuring good promotion of one such circular service. The Nordic Swan Ecolabel also aims to establish the credibility of this service, so that cleaning is used more widely instead of buying new electronic devices. This is achieved by setting requirements for the performance of the cleaning service (speed and quality) that ensure a good customer experience, plus relevant environmental requirements for a cleaning process that does not cause any unnecessary impact on the environment.

# 6 Environmental impact of cleaning of liquid damaged electronics

**General environmental gains from cleaning of liquid damaged electronics**

Cleaning liquid damaged electronics so that they work again has a positive impact on the environment.

Avoiding the production of new electronics helps to reduce e-waste, as well as saving on the energy and raw materials used to produce a new electronic device.

The background document for the Nordic Swan Ecolabelling of computers states that energy consumption in the production phase plays a major role in the computer's overall environmental impact. This is supported by Hoang, Tseng, Viswanathan & Evans (2010), who conclude that the production and manufacture of a computer accounts for almost 90% of its energy consumption and emissions of greenhouse gases over the course of its life cycle.

According to the background document for the EU Ecolabel criteria for computers, many current studies on the environmental impact of computers and other electronics continue to focus strongly on the use phase of the devices. The environmental impact that occurs during the production phase is often overlooked, not least because data about production processes is hard to access. An LCA of smartphones (Ercan et al., 2016[5]) shows that 85-90% of a smartphone's climate impact over its lifetime derives from the extraction of raw materials and the manufacture of the phone. It is therefore a highly significant move, environmentally, to avoid discarding electronics and instead extend their lifetime – as is the case with cleaning of liquid damaged electronics.

Electronic devices such as mobile phones, tablets and laptops contain several scarce resources and metals such as gold, silver, platinum, indium, tantalum, gallium and so on. Although the quantity in grams may seem relatively small, from a resource perspective it is incredibly significant. In addition, extraction and production are associated with significant environmental impacts and, in the case of certain metals, may also be linked with breaches of human rights[6] and problems for endangered animal species[7].

Furthermore, large quantities of water are used in the manufacture of computers and other electronics, particularly when producing computer chips. Environmental

[5] Ercan, M., Bergmark, P., Kimfalk, E. & Nilsson, E. (2016): Life Cycle Assessment of a Smartphone. https://download.atlantis-press.com/article/25860375.pdf
[6] The Guardian (2018): Is your phone tainted by the misery of the 35,000 children in Congo's mines? https://www.theguardian.com/global-development/2018/oct/12/phone-misery-children-congo-cobalt-mines-drc
[7] Wildlife Conservation Society (2017): Conflict minerals: Deadly for great apes. https://www.wcs.org/get-involved/updates/conflict-minerals-deadly-for-great-apes

organisation Friends of the Earth has attempted to estimate a water footprint that takes account of water consumption over the life cycle of a smartphone. They put consumption at no less than 12,760 litres of water per phone, the vast majority of which occurs during the raw material extraction and production phases[8].

The above-mentioned resource consumption involved in the production of new electronics will not occur if electronics are repaired/cleaned instead of being replaced, thus extending the lifetime of the product.

E-waste is a major environmental problem for several reasons. One of the ways that e-waste is disposed of is by exporting it abroad, with a major risk that it will then end up in landfill. This is a considerable problem for the environment, since emissions of toxic chemicals in an area, not least into the groundwater, can destroy the local environment.

Another method of e-waste disposal is incineration. Incineration releases toxic substances into the atmosphere, which is also a serious problem for the environment.

**Environmental impacts from the cleaning of liquid damaged electronics**

The cleaning of liquid damaged electronics requires energy to run the cleaning process and to fully dry out the devices. Water and cleaning agents are also used in the cleaning process, which will thus generate wastewater containing chemical residues and possibly also substances that were flushed out from the electronic device.

Suppliers of the service cleaning of liquid damaged electronics have influence over how effective and environmentally harmful the cleaning is through their choice of process, technology, chemicals and so on. The type of chemicals to be used in the machine often depends on the cleaning method – and if it is a fully automated process, the chemicals will often already be part of the supplied technology. In this case, the manufacturer/supplier of the machine has the capacity to influence their supplier of cleaning chemicals for the machine. The manufacturer/supplier of the machine may be the licensee.

For the cleaning of electronic devices to work, and to ensure that people do not just buy new products instead, the service should be fast and provide a high success rate, so the customer experiences a high level of satisfaction.

The electronic devices that cannot be brought back to life must be processed correctly, so that not all the important resources end up in landfill, with the scrap instead sent for recycling in order to bring as many of the resources as possible back into the eco-cycle. The supplier of the service can contribute to this by having good and trustworthy agreements with collectors of electronic scrap.

# 7 Justification of the requirements

## 7.1 Definition of the product group

These criteria provide for the Nordic Swan Ecolabelling of a service that cleans and saves liquid damaged electronics such as laptops, tablets, phones and smartphones

[8] Friends of the Earth (2015): The land and water footprints of everyday products. Mind your step. https://friendsoftheearth.uk/sites/default/files/downloads/mind-your-step-report-76803.pdf

and -watches. The service may be limited to only certain types of electronic products (for example, laptops only). The cleaning process may be manual, semi-manual or fully automated. The service is counted from the time that the business receives the liquid damaged electronic device, until the device is cleaned and dried, any corrosion has been stopped and the product is ready to be returned to the customer.

This generation of the criteria does not set requirements concerning any transport that may be involved in the service.

The product group is limited specifically to personal electronics such as personal computers, tablets, mobile phones, smartphones and smart watches. This therefore excludes electronic products for industrial use such as robots and machinery containing electrical devices.

This restriction has been set in part to ensure the relevance of the requirements and requirement levels in relation to the types of liquid damage that may occur and the functional unit.

The criteria have been developed in collaboration with a manufacturer of a mechanical solution for the cleaning of liquid damaged electronics, which Nordic Ecolabelling also predicts will be the most widespread solution used. However, this does not exclude more manual solutions from obtaining a licence, as they may also be a good environmental solution.

The service is limited to the actual cleaning of the electronic devices. There may be suppliers who offer transport (collection/delivery) as part of the service. There is, however, considerable variation in how such a collection/delivery service is offered, and whether it falls into the service provider’s area of responsibility.

Some workshops package the electronic device in a cardboard box and send it by courier to the nearest cleaning machine. Other workshops have their own cleaning machine. Nordic Ecolabelling’s knowledge in this area remains limited, but we judge the impact from this transport to be small, compared to the overall positive environmental effect of getting the electronic device back to the user. Therefore, no transport requirement has been included in this generation of the criteria.

Nordic Ecolabelling has included a requirement that the licensee must offer processing of the electronic devices that cannot be repaired through cleaning. It is highly likely that a customer whose electronic device cannot be saved will require help in disposing of the device in a responsible way.

The functional unit is “per cleaned electronic device”. The unit has been chosen to ensure that the requirements are balanced in relation to each other and in terms of their relevance/importance to the product group’s environmental performance.

**The licence structure is thus subdivided as follows:**

Businesses that have control over the process and can document full compliance with Nordic Ecolabelling’s requirements may apply for a licence.

It may be a single workshop that offers the service or the supplier of a fully automated process that supplies the technology to multiple workshops, which then offer the service. If the licensee is a supplier of a fully automated service, it must be made clear in the licence which workshops, and drop-off points are covered by the Nordic Ecolabel licence. Only those workshops and drop-off points that are covered

by the Nordic Ecolabel licence may market themselves using the Nordic Swan Ecolabel.

## 7.2 Description of the service

**Background to requirement O1 Description of the service**

For Nordic Ecolabelling to be able to establish that the service for which a licence is being sought falls within the product group definition, and in order to correctly process the case, it is important to have basic information about the performance in place at the start of the application.

## 7.3 Effectiveness and quality of the service

**Background to requirement O2 Rescue rate**

The most important function of these criteria is to save as many liquid damaged electronics as possible. If the electronic device is not going to work satisfactorily for the customer, they are likely to get rid of it and so the work of trying to save the product is simply an unnecessary use of resources. In addition, a high proportion of electronic devices need to be saved to ensure high customer satisfaction and thus increase confidence in the service.

The rescue rate is not only an expression of how effective the technique is but is also influenced by which products and how damaged these are that you try to save. That is, if you try to save a larger segment of damaged electronics, the rescue rate will typically be lower, but the number of saved electronics products will be higher than if you try to save a smaller segment of damaged electronics. The rescue rate is therefore set at a level where it is possible to try to save a larger segment of damaged electronics and where the rescue rate remains relatively high.

To ensure that every customer receives the same service level for the cleaning of their electronic device, we have decided that the requirement concerning rescue rate must be achieved for every location and in every facility that provides the cleaning service. This means that if, as a licensee, you have multiple cleaning machines located at different workshops, each individual workshop with a cleaning machine must fulfil the requirement.

As part of rescuing the electronic device, the workshop may need to replace certain seriously damaged electronic parts to make the device work properly again. Nordic Ecolabelling has chosen not to relate the requirement concerning proportion of rescued electronic devices to the proportion of the product’s parts that are replaced.

Components for electronic devices are relatively expensive compared with the price of a new electronic device. There is therefore a financial limit on how many parts can be replaced before it makes better financial sense to buy a new device. There will, however, always be an environmental gain in cleaning and saving electrical devices, compared with buying new products – even with extensive replacement of components.

In the EU there are product guarantee rules to ensure the consumer if one’s products break down prematurely. For most products, including electronics devices, the product guarantee scheme in the EU is set at 2 years. However, as soon as a device has been exposed to damage, such as liquid damage, the manufacturer’s warranty lapses. The consumer will therefore not be able to rectify complaints during the original warranty period. To ensure security about the service cleaning of liquid

damaged electronics, Nordic Ecolabelling requires that the licensee must “take over” the original product guarantee, so that the consumer’s original warranty is intact.

**Background to requirement O3 Cleaning speed**

People are extremely dependent on their electronic devices these days and being without them for any length of time is very bad news for most users.

It is therefore vital for the credibility of this service that it can compete against buying a new device, which is why the customer must get the electronic device back in a usable condition as quickly as possible – a short turnaround time (TAT).

To ensure that every customer receives the same service level, we have decided that the requirement concerning speed of cleaning must be achieved for every location and in every facility that provides the cleaning service. This means that if, as a licensee, you have multiple cleaning machines located at different workshops, each individual workshop with a cleaning machine must fulfil the requirement.

There are, however, certain limits to the parts of the repair process over which this service has steerability. If, for example, a user in northern Sweden requires a repair, time for transport to a location where the repair and cleaning can be carried out needs to be factored in. There may also be delays in delivery of components from the manufacturer, something over which the repairer or licensee has no control, which is why Nordic Ecolabelling’s requirement focuses on the part of the repair that the licensee has control over, which is cleaning and drying. It is important to make sure that the cleaning and drying do not delay the overall repair to any significant degree.

**Background to requirement O4 Stopping corrosion**

If the process always returns the product to a usable condition, but does not stop the corrosion process, it is only a question of time before the electronic device fails again – and then we have not achieved the full environmental gain and the customer has experienced a poor-quality service. As an important environmental and quality requirement, we have therefore chosen to require documentation that the process stops any corrosion.

## 7.4 Environmental requirements

The requirements in this section are limited only to the cleaning and drying process for the liquid damaged electronic device. They do not relate to energy or water consumption within the business, such as lighting, ventilation, water for the kitchen, and so on.

**Background to requirement O5 Energy consumption**

To ensure a focus on energy efficiency when saving electronic devices, we have chosen to set an energy requirement and make it relative to the number of devices saved. We are doing this even though the energy consumption saved by avoiding producing new electronics is far greater. The requirement has been set to ensure no unnecessary waste of energy and combined with our other process and chemical requirements, can help to identify the most environmentally positive methods for saving liquid damaged electronics.

The requirement level has been set based on data gathered from known technology. To acknowledge that other technologies in this area may also be environmentally acceptable, even if they use a little more energy, the threshold value has been set slightly higher than the consumption figures that we have available to us.

Each production location must individually meet this requirement to ensure that there are no workshops covered by the Nordic Swan Ecolabel licence that only meet the requirements because other workshops covered by the licence have lower energy consumption than the requirement level.

### Background to requirement O6 Water consumption

To ensure a focus on water consumption when saving electronic devices, we have chosen to set a requirement for overall water consumption within the service. It is worth stating, however, that far more resources are consumed if the electronic device is discarded and replaced with a new purchase. The aim of this requirement is to ensure that provision of the service involves no unnecessary waste of water. Combined with our other process and chemical requirements, the requirement can help to identify the most environmentally positive methods for saving liquid damaged electronics.

The requirement level has been set based on data gathered from known technology. To acknowledge that other technologies in this area may also be environmentally acceptable, even if they use a little more water, the threshold value has been set slightly higher than the consumption figures that we have available to us.

Each production location must individually meet this requirement to ensure that there are no workshops covered by the Nordic Swan Ecolabel licence that only meet the requirements because other workshops covered by the licence have lower water consumption than the requirement level.

### Background to requirement O7 Wastewater

There is an acknowledged challenge in the fact that electronic devices contain heavy metals[9], and that the manufacture of electronic equipment leads to heavy metals in the wastewater[10]. There is a small risk that these heavy metals might be flushed out during the cleaning of liquid damaged electronics. The cleaning process may involve small amounts of water that are reused several times before being discharged as wastewater.

Very little is known about the levels of heavy metals in wastewater from the cleaning of liquid damaged electronics. The risk that the cleaning of liquid damaged electronics will lead to major discharges of heavy metals is, however, judged to be very low.

Nordic Ecolabelling has therefore chosen not to set an absolute requirement in this first generation of the criteria, and instead has set a requirement that the licensee must test for heavy metals in the wastewater. This is partly to ensure that the licensee focuses on this, and partly to gather more data in this area.

Nordic Ecolabelling is not aware of any facility that conducts its own treatment of wastewater before it is discharged into the public system. If such treatment does exist, we would like to know more about it in applications so that we can incorporate it into future revisions of the criteria. Therefore, Nordic Ecolabelling requests information on this in the requirement.

[9] Miljøprojekt Nr. 851 2003 Tungmetaller i affald - guide og idékatalog til sortering af tungmetalholdigt affald (*Environmental Project No. 851 2003 Heavy metals in waste – guide and ideas for sorting waste containing heavy metals*). Claus Dahl Thomsen, Carsten Lassen and Elisabeth Holst, COWI A/S; Benedikte Hauge I/S Vestforbrænding, section 4.4.2
[10] https://www.slideshare.net/nitinyadav16/electronic-industry-waste-water

### Background to requirement O8 Chemical products

There can be a considerable variation in the chemicals used in the process, from organic solvents to ecolabelled cleaning products and water. The choice of chemicals for the cleaning can have an impact on the working environment in the workshops that perform the process, and on discharges into the sewerage system. We have chosen to focus on the chemicals used in the process – even though far more chemicals are used in the manufacture of new electronics. Combined with our other process requirements, the requirement can help to identify the most environmentally positive methods for saving liquid damaged electronics.

### Background to requirement O9 Processing of electronic waste

Electronic waste is the fastest growing category of waste in the world. The UN estimates that there were 65 million tonnes of electronic waste in 2017. Denmark alone is thought to send 40,000 tonnes of electronic waste to incineration plants, where they can cause major harm to the environment, since electronics contain many substances that are hazardous to health and the environment[11]. Electronic waste also contains several resources that can be recycled to the benefit of the environment.

Nordic Ecolabelling sets a requirement that electronic waste arising from the process due to unsalvageable devices and/or replacement of individual components is collected and processed correctly. This is done by requiring that the electronic waste is deposited with an environmentally approved recipient. If you do not have a direct agreement with an environmentally approved recipient, but use a collector instead, the collector must also document that they are approved. The systems for this differ across the Nordic countries, and documentation must therefore be provided for each country in which the service will be provided. Waste collectors must also document that they take the electronic waste to a recipient that has an environmental permit to process electronic waste. This ensures that the electronic waste is processed in line with prevailing legislation (WEEE Directive)[12] on recycling and reuse.

A final option for ensuring environmentally correct processing of electronic waste is to return it to the producer under a Swap scheme. According to the WEEE Directive, the producer holds responsibility for ensuring correct processing of its electronic products in the waste phase, and thus the direct take-back of electronic waste by the producer can be one way of complying with the legislation. Under a Swap scheme, the repairer orders a spare part to save the electronic device and to receive that spare part, the equivalent damaged part is returned to the producer.

In order to provide a good service, and to increase the likelihood of electronic scrap being sent for recycling rather than ending up being incinerated due to incorrect handling by the consumer, the licensee must offer to take care of a customer's electronic device that is unsalvageable and thus has become a waste product. This does not mean that customers must hand over their electronic device to the licensee.

In Norway electronic waste (EE waste) can be deposited, free of charge, with municipalities or retailers who sell equivalent EE products, for example electronics retailers, supermarkets and toy stores. Retailers and municipalities have a duty to accept such waste and to promote this service. All importers and producers must be a member of a returns company approved by the Norwegian Environment Agency to process all EE waste. Three recycling companies are currently approved by the

[11] https://www.affald.dk/da/ungdomsuddannelser/elektronik/artikler/143-elektronikskrot-maengder-og-behandling.html
[12] https://eur-lex.europa.eu/legal-content/DA/TXT/PDF/?uri=CELEX:32012L0019&from=EN

Norwegian Environment Agency to deal with all types of EE waste: Norsirk AS, ERP Norway AS and RENAS AS.

To ensure that consumers and businesses using this service do not run the risk of spreading corporate or personal data, because of unsalvageable damaged electronic devices, the licensee must have a routine to ensure that all data on the electronic waste is removed.

## 7.5 Environmental management and regulatory requirements

Quality and regulatory requirements are general requirements that are always included in Nordic Ecolabelling's service criteria. The purpose of these is to ensure that fundamental quality assurance and applicable environmental requirements from the authorities are dealt with appropriately.

They also ensure compliance with Nordic Ecolabelling's requirements for the service throughout the period of validity of the licence.

To ensure that the Nordic Ecolabelling requirements are met, a documented management system must be in place, and it must include the following implemented procedures. If the applicant has a quality system that is certified to ISO 9001, or an environmental management system certified under ISO 14 001 or EMAS, and the following procedures are applied, it is sufficient for the certification body's auditor to certify compliance with the requirements.

In this context, there are business models where the licensee is not the party that has immediate contact with customers seeking a repair service, which is why a requirement has been introduced to ensure understanding of and compliance with the criteria by the suppliers that are in contact with the customers.

**Background to requirement O10-O17**

See section 7.5.

# New criteria

In a future revision, Nordic Ecolabelling will look more closely at:

- The scope to tighten up the rescue rate requirement.
- The scope to tighten up the requirement concerning how quickly the service is completed, so that it also includes the screening and any replacement of parts.
- Tighter requirements for energy and water consumption.
- The potential for a requirement concerning the transport that is involved in the service.
- Requirements concerning packaging.
- The scope to demanding re-use of chemicals.
- The scope to setting limit values for heavy metals in wastewater.