Nordic Ecological Standard (NES) 1.1

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Introduction

The Nordic public and private media industry reaches an audience of millions with their audiovisual productions. With this scope comes social responsibility for a sustainable production of these contents. Audiovisual film- and TV-productions that are eco-friendly and protect resources are an essential contribution towards reducing CO_2-eq emissions and at the same time a process of technological transformation comprising both technical and artistic changes.

Therefore, the NES working group has agreed to present a common ecological standard for Nordic audiovisual productions. As part of a work process, the members of the working group (including film institutes, public and private broadcasters, film- and tv-producers associations etc.) have jointly agreed upon a Nordic Ecological Standard (NES). The standard (NES) is inspired by the **Ecological standards for German cinema, TV and online/ VoD productions** and the **Austrian Catalogue of Criteria of Minimum Ecological Standards for Austrian Cinema Film Productions ÖFI/ÖFI+**.

The ecological standard is evaluated on an ongoing basis and adapted according to the availability on the market, the current state of science and technology as well as relevant developments concerning climate and environment. The members of the working group all agreed on aiming toward a steadily growing level of ambition. A governance board, representing the Nordic Film and TV Industry and national/Nordic funding institutions, will oversee implementation.

Potential additional costs in a production in order to meet the NES requirements shall be recognised as legitimate production expenses and included in the overall production budget. As such, they are to be covered by financiers, broadcasters, and other funding partners on the same basis as any other budgeted cost.

Resilience, credibility, and transparency are the main pillars of the ecological standard and compliance is ensured through standardised verification.

The ecological standard applies to all stages and types of audiovisual production from pre- to postproduction, generally irrespective of whether the production company is based in the Nordics or abroad. The requirements are divided into six fields of action. Most of the fields of action comprise requirements that both should and shall be met. Those that shall be met are mandatory. A minimum number of mandatory requirements shall be met for the fulfilment of the ecological standard.

In justified cases where the mandatory requirements cannot be met, a maximum of five deviations from the 23 mandatory requirements are admissible. This regulation is intended to be evaluated yearly, and the number of possible deviations may be reduced.

Deviations from the respective mandatory requirement should be reduced to a minimum. In case a mandatory requirement is justifiably not relevant (for example the production does not include external accommodation (requirement 4.a), the mandatory requirement is considered to be fulfilled. Unlike the mandatory requirements, the target requirements should not be considered a strict regulation but an appeal for an environmentally sustainable mode of production. Implementing the target requirements, just like implementing the mandatory requirements, produces an effective reduction of greenhouse gas emissions and is therefore desirable. Prospectively, target requirements are to become mandatory in the framework of the ecological standards' evaluation and further development.

GENERAL REQUIREMENTS

1.a Responsibility statement of the management and line producer(s)

● Mandatory requirement (non-discardable)

Before the start of production, management and line production shall jointly issue the following statement. "We confirm that the current regulations for the Nordic Ecological Standard (NES) have been acknowledged and that they will be observed appropriately during the production of the TV/film/series/AV project."

A template of this management and line producer(s) responsibility statement can be found on the website. The statement may also be issued in the production contract.

1.b Green consultant/green manager

● Mandatory requirement (non-discardable)

An external Green Consultant shall be employed, or an existing staff member designated as a Green Consultant/Manager, or a person responsible for environmental sustainability in the production shall be assigned. Ideally, this individual will have completed multi-day training and possess up-to-date knowledge of sustainability issues in the audiovisual sector or have previous experience working with such issues on similar productions.

The Green Consultant shall accompany the production from the planning stage to approval. Their role is to ensure compliance with the ecological standard and promote a resource-efficient, CO_2-eq reduced mode of production.

The Green Consultant's responsibilities may include, but are not limited to, the following areas: personnel and material transport, energy use, accommodation and catering, as well as the use of materials.

Greenhouse gas (GHG) emissions calculation

One of the key objectives of the ecological standard is to reduce CO_2-eq emissions in the various stages of film production. Therefore, it is essential to systematically calculate the CO_2-eq emissions already in the planning stage of production.

1.c Initial report and preliminary greenhouse gas (GHG) emissions calculation

● Mandatory requirement (non-discardable)

An initial report (using a standardised template) and a preliminary greenhouse gas (GHG) emissions calculation shall be submitted no later than upon receipt of an LOC, production support, or green light. The calculation shall be performed using a CO_2-eq calculator.

1.d Final greenhouse gas (GHG) emissions calculation

● Mandatory requirement (non-discardable)

After the production is completed, a detailed calculation of the CO_2-eq emissions shall be submitted. The calculation shall be performed using a CO_2-eq calculator.

1.e Final report

● Mandatory requirement (non-discardable)

After the production is completed, the production company shall submit a final report based on a standardised template.

This report shall detail the fulfilment of the requirements and provide the actual CO_2-eq emissions of the production, calculated after its completion.

PERSONNEL AND MATERIAL TRANSPORT

Personnel and material transport are among the largest sources of CO_2-eq emissions in a production. To reduce emissions from travel and transport, some effective strategies include:

- Choosing production sites and locations that are easily accessible by train or public transport, with suitable accommodation nearby
- Logistically optimising transport through time- or space-based pooling
- Encouraging carpooling
- Employing local or smaller crews

The choice of transportation is also crucial. Flights generate significant greenhouse gas emissions and should be avoided whenever possible. Cars, small vans, minibuses, and trucks also contribute to high emissions. In contrast, bicycles and e-bikes are nearly CO_2-eq neutral. Trains, on average, emit 90% less greenhouse gas than planes, making them one of the most environmentally friendly transport options.

Therefore, trains, public transport, bicycles, and e-bikes should be used whenever possible.

2. a Public transport for audience participation and extras

○ Mandatory requirement

For studio productions with audience participation, audience members should be encouraged to use public transport or other sustainable transportation options, such as bicycles, whenever possible. This can be done e.g. by sending the audience a guide on how to reach a location easiest by public transport/bike. This requirement is also applicable for extras.

2.b No flights if trains take less than five hours

● Mandatory requirement

Domestic and international flights are not permitted if the corresponding train journey (or journey by bus/car/ferry) takes less than five hours. Private planes shall not be used for the production, unless they are shown in the picture.

2.c Use of low-emission vehicles

● Mandatory requirement

One in two cars owned or rented by the production (excluding those featured in the production) shall be CO_2-eq-reduced vehicles with low particulate matter and nitrogen oxide emissions.

These include:

- fully electric vehicles (preferably powered by green energy)
- CNG vehicles (ideally fueled by bio-CNG)
- hybrid vehicles (both classic hybrids and plug-in hybrids, with the latter preferably used in electric mode)

2.d Use of low-emission minibuses, vans, and small trucks

● Mandatory requirement

One in three vehicles owned or rented by the production (excluding those featured in the production) shall be CO_2-eq-reduced vehicles with low particulate matter and nitrogen oxide emissions.

These include:

- fully electric vehicles (preferably powered by green energy)
- CNG vehicles (preferably using Bio-CNG)
- hybrid vehicles (both classic hybrids and plug-in hybrids, with the latter preferably used in electric mode)

Special vehicles with elaborate integrated technology are excluded from this regulation.

2.e Use of low-emission trucks over 7.5 tons

○ Target requirement

One in four trucks exceeding 7.5 tons owned or rented by the production (excluding those featured in the production) shall be CO_2-eq-reduced vehicles with low particulate matter and nitrogen oxide emission.

These include:

- fully electric vehicles (preferably powered by green energy)
- CNG vehicles (preferably using Bio-CNG)
- hybrid vehicles (both classic hybrids and plug-in hybrids, with the latter preferably used in electric mode)

Special vehicles with elaborate integrated technology are excluded from this regulation.

2.f Only EURO 6 diesel

● Mandatory requirement

If diesel vehicles are employed, they shall meet the diesel EURO 6 standard.

Special vehicles with elaborate integrated technology or specific elaborate fittings are excluded.

(All the production company's existing vehicles as well as the vehicles of the technical service providers are transitionally excluded from this mandatory requirement regarding vans and trucks. This temporary exemption will be discussed before the next revision of the standard, and until then, the exemption will remain in place.)

2.g Charging electrically driven vehicles with green energy

○ Target requirement

In countries where it is accessible, green energy should make up at least 30 % of the total quantity used to charge the electrically driven vehicles.

ENERGY USE

Switching to green energy *1 is one of the quickest and most effective ways to reduce CO_2-eq emissions. Diesel generators, on the other hand, are significant contributors to greenhouse gases and particulate matter.

Therefore, electricity should be sourced from the grid whenever possible, rather than relying on generators.

Lighting, both in studios and on location, often demands substantial energy. By systematically optimising energy use for lighting and adopting energy-efficient technologies, a large portion of previous energy consumption can be reduced.

**1 Green energy = renewable energy, fossil free energy and/or ecolabelled energy (for example Bra Miljöval/Good Environmental Choice).*

3.a Green energy at all production sites

● Mandatory requirement

In countries where it is accessible, green energy shall be used at all company sites of the production, (including post-production facilities) and all studios which are used for the production.

3.b Green energy for temporarily used sites

○ Target requirement

In countries where it is accessible, green energy should be used at temporarily used sites (such as production offices or similar locations) whenever possible.

3.c Green energy at "on location" productions

○ Target requirement

In countries where it is accessible, green energy should be used whenever possible for 'on location' productions that are mains-operated.

3.d Green energy in postproduction

● Mandatory requirement

In countries where it is accessible, use of green energy is mandatory for post-production tasks.

3.e Conditions for the use of generators

● Mandatory requirement

Generally, the entire production should operate using mains electricity. However, the use of generators is allowed in the following case:

- "On location" productions without technically suitable access to the grid within 100 meters.

3.f Time limit for diesel generators

○ Target requirement

If the use of diesel generators is necessary (under the conditions of 3.e), they should not be used at the same filming location for more than three consecutive days. Any exceptional cases where they are used for longer than three days shall be justified in the final report.

3.g Exhaust emission standard Stage V for diesel generators

○ **Target requirement**

If diesel generators are employed, they should preferably:

- meet the exhaust emission Stage V standards,
- be equipped with a particle filter,
- not be fuelled with heating oil,
- run on fuels derived from certified regenerative residues (commonly referred to as second-generation HVO fuels).

Battery solutions, instead of fossil-fuel driven generators, are always preferred. Where this is not feasible, efficient hybrid systems are the recommended alternative.

3. h Using a power grid management system

○ Target requirement

If several diesel generators are employed at one location it is recommended to use an energy-saving power grid management system.

3.i Efficient lighting technology in the studio and on location

○ Target requirement
Light sources with a high level of energy efficiency such as LED lights should be employed both for studio productions and for "on location" shooting. Light sources such as incandescent and halogen spotlights should be avoided up to 2KW.

ACCOMMODATION AND CATERING

External accommodation contributes significantly to greenhouse gas emissions, with hotel stays generally causing higher emissions per person and night to accommodation in apartments or holiday homes.

Greenhouse gas emissions in hotels can be significantly reduced through appropriate environmental measures. Therefore, apartments/holiday homes or hotels with recognised environmental certifications should be booked whenever possible. It is also important that these accommodations are located near the production site.

In addition to accommodation, catering is another CO_2-eq-relevant factor during production. The current food production process causes considerable greenhouse gas emissions worldwide, particularly in the production of meat, as well as through international food transport and the use of artificial fertilisers and pesticides. By reducing the consumption of animal products and carefully selecting environmentally friendly, locally grown primary products the environmental impact of food consumption can be effectively minimised.

4.a Minimum of 50% environmentally friendly accommodation
● Mandatory requirement
At least 50 % of the accommodation shall be booked in apartments/holiday homes or hotels with recognised environmental measures, provided they are available within a 15-kilometer radius of the production site.

“Hotels with recognised environmental measures” are those that provide at least the following practices:
- green energy
- energy-saving measures regarding heating and climate control
- water-saving measures
- waste separation

4.b Vegetarian catering
● Mandatory requirement
Catering options shall be strictly vegetarian on at least half of the shooting days in any given production week.

4.c Locally produced food
● Target requirement
It is recommended that at least 50% of the food is either organic or produced in the country of the respective production site.

4.d Information on catering
● Mandatory requirement
Prior to shooting, production shall inform the crew regarding the environmentally oriented selection of food.

4.e No disposable tableware

● Mandatory requirement
Disposable tableware (plates, cutlery, cups, etc.) and disposable bottles shall not be made available during the entire production.

4.f Demand-oriented meals
○ Target requirement
Food waste should be avoided by preparing and serving meals based on demand, rather than pre-portioned meals.

USE OF MATERIALS

The production and disposal of material used for stage and scenery construction as well as set design, often for single use, consume significant natural resources and generate harmful emissions.

To minimise the environmental impact of individual productions, materials should be reused across multiple productions whenever possible.

Additionally, prioritising recycled materials and making environmentally conscious material selections are effective strategies for promoting a resource efficient circular economy.

5.a Multiple uses of materials for sets and decoration
○ Target requirement
Sets, decorative elements, and materials should be reused whenever possible through storage, rental, leasing, or second-hand sourcing.

This approach supports a circular economy by minimising waste and maximising resource efficiency.

To achieve this, the use of newly acquired materials for set and scenery construction should be limited to less than 50% of the total materials used.

5.b No disposable batteries
● Mandatory requirement
Disposable batteries are prohibited through-out the entire production, including on set, in production offices, and in studios.

Rechargeable batteries shall be employed instead and should be recyclable whenever possible.

Exception: mini batteries for in-ear devices.

5.c New wood shall carry FSC or PEFC seals
● Mandatory requirement
If new wood and new wooden composites are used, they shall originate from sustainable forest management and carry the FSC or PEFC seal.

5.d No materials with problematic substances or origins
○ Target requirement
Materials and substances that are harmful to the environment or human health and safety should not be used. Examples include, but are not limited to:

- formaldehyde (e.g. from wood composites)
- PVC and other chlorinated plastics

- solvent-based products (paints, adhesives, sprays)
- polystyrene and other plastics that are difficult or impractical to recycle
- isocyanates (e.g. spray foams)
- Halogenated flame retardants
- PFAS (e.g. waterproof coatings, fire-resistant textiles)
- Nanoparticles (e.g. nanosilver)
- Heavy metals (e.g. pigments, dyes)
- Sensitising preservatives (e.g. MI)
- Endocrine disruptors and other banned chemicals

Any exceptions shall be explained and justified in the final report.

When possible, procurements should carry the Nordic Swan Ecolabel, the EU Ecolabel or a similar certification.

5.e Separable connection between basic materials

○ Target requirement

Different materials should be put together in a way they can be easily separated in the disposal process and thus recycled in a targeted manner. Sets and decorations which are not re-used should be separated into their principal materials in the disposal process.

Regarding reuse of costumes

Costumes should be reused whenever possible through storage, rental, leasing, or second-hand purchases. Whenever suitable and agreed upon, protagonists should be allowed to use their own clothes on camera. Fast fashion and discount clothing should be avoided. To minimise transport emissions, regional services should be used for costume and prop logistics whenever possible.

5.f Reuse of costumes

● Mandatory requirement

For all necessary costumes, costume designers shall conduct a thorough assessment to determine whether items can be sourced second-hand or reused from the inventory before purchasing new ones.

5.g Avoiding disposable plastic

○ Target requirement

Single-use plastic items should be avoided in all areas and replaced with environmentally friendly alternatives. Makeup products used in production shall be free from microplastics.

5.h Preferred use of recycled materials

○ Target requirement

The use of material with a percentage of more than 50 % recycled components should be preferential.

5.i 90 percent recovered fibre in paper

● Mandatory requirement

Whenever paper is used it shall be recycled paper with a proportion of at least 90 % of waste fibre. If not possible, the paper shall have an eco-label such as the Nordic Swan Ecolabel. This applies to all consumables (copy paper, toilet paper, kitchen paper, envelopes, paper towels, etc.) except props, and in case of demonstrated technological need of 100 % colourfastness in the creative process.

5.j Waste separation requirement

● Mandatory requirement

Waste produced at all production sites (including on location), studios, and offices shall be separated into at least the following categories:

- Paper and cardboard
- Glass
- Plastic
- Metal
- Wood
- Organic waste
- Residual waste (non-recyclable mixed waste, e.g. padded envelopes, composite packaging)
- Hazardous waste (e.g. paint, chemicals, batteries)
- Electronic waste
- Textiles

If regional disposal companies cannot provide these categories, compliance with alternative regulations according to the disposal companies is permitted. However, these alternative requirements shall be verified.

If local waste management regulations provide additional categories (e.g. food and drink cartons in Denmark), these shall also be followed.

BIODIVERSITY

6.a Biodiversity protection

● Mandatory requirement

If the filming location is within areas protected by national or EU law (such as nature reserves, Natura 2000 Areas, bird protection areas, etc.) or in sensitive ecosystems (such as bogs, glaciers, floodplains, etc.), a protective plan shall be submitted. This plan should include the following measures, depending on the circumstances:

- Definition of necessary protective measures
- Implementation of measures, such as protection of the grass layer or tree roots, prevention of damage from buildings, structures, equipment, fire, chemicals, paints, feces, and marking or securing of paths
- For filming with animals, special measures shall be taken to address foot damage, animal feces, scattered materials, and protection against browsing
- Ensuring that all involved parties are informed of the protective measures