

European Commission
DG Energy, Unit C3 Energy Efficiency
BE-1049 Brussels
Belgium

Response to the public consultation on Eco-design and energy labelling on refrigerators, dishwashers, washing machines, televisions and lamps, as they relate to lighting for cultural and entertainment purposes.

Introduction

The senders of this response are an ad-hoc coalition of organizations, businesses and industry professionals, who together represent the majority of concert venues, theatres, festivals, music related interest groups, lighting designers, unions, performing artists, distributors and lighting equipment rental houses in Norway.

Even though Norway is not a member of the European Union, this regulation will be implemented through our EFTA and EEA memberships.

Main concerns and recommendation

The coalition is concerned with climate change and all members are committed to the goals of the EU in relation to reduced power consumption. In accordance to this, most of the concert venues, offices and theatres we represent work continuously to become as eco-friendly as possible both in terms of lighting and all other aspects of our businesses.

The proposed regulations cover all light sources and luminaries in an all-encompassing way. The current proposal takes certain specialist fields into consideration, e.g. video projection and sports field lighting, but considerations for lighting for cultural and entertainment purposes are vague. We are deeply concerned about the economic, technical and artistic consequences of implementing this revision, which could replace Commission Regulation (EU) No 1194/2012 “implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to Eco-design requirements for directional lamps, light emitting diode lamps and related equipment”, without keeping the existing exemption for special purpose luminaries used for stage lighting in theatres and other live performance venues as described in Article 2 section 4(b). A definition of this kind of equipment can be found in IEC 60598-2-17:2017 “Particular requirements - Luminaries for stage lighting, television and film studios (outdoor and indoor)”.

We recommend that the European Commission also keep the narrow and limited exemption for professional lighting for entertainment and cultural events and installations as “special purpose lamps” as described in Commission Regulation (EU) No 1194/2012 Article 2 section 4(b) in the upcoming revision.



Specific topics concerning our industry

While we find the general scope and ambition of the proposed regulations laudable, as reducing energy consumption must be a top priority for years to come, the proposed regulations contain several specific, technical and artistic topics concerning our industry.

1. The new A-G energy marking proposal with a minimum energy efficiency of 85 lumens per Watt includes in its scope a broad range of luminaries, excluding only luminaries with a luminous flux of less than 60 and more than 82000 lumens. The intent seems to be to automatically exclude high power lights used in sports fields and arenas, with the erroneous assumption that this will also include luminaries commonly used in lighting for cultural and entertainment purposes. The proposed regulations makes exceptions for video projector lamps inside the specified scope, and a similar exception is needed for lighting for cultural and entertainment purposes.

As an example, a commonly used and popular luminary for cultural and entertainment purposes is the ETC Source Four. With a 230V 575W halogen source, the luminary produces about 7500 lumens, which equates to about 13 lumens per watt. This is far outside the scope of the proposed regulations. Even the HPL source itself without optics and lamp housing would only render about 20 lumens per watt. (<https://www.etcconnect.com/Products/Lighting-Fixtures/Source-Four/Source-Four-CE/Documentation.aspx>)

The same problem can also be found in the very latest LED sources. The brand new Martin Mac Encore CLD measures at 11600 lumens. At 230V and 580W this is about 20 lumens per watt, the same as the halogen sourced ETC Source Four. (<http://www.martin.com/en-us/support/product-details/mac-encore-wash-cld>)

The technology to build readily available luminaries of the same price, quality and reliability needed by the culture and entertainment industry in order to operate within the scope of the A-G marking system does not exist in any current form known to this industry.

2. The proposed regulations do not consider the use of additive colour mixing, a tool commonly used in the culture and entertainment sector. The definitions used in the proposal concerns white light, and certainly represent improvements to what is defined as white light. However, for any other colour than white, additive RGB (multicoloured) light is far more efficient, yet the current proposal would outlaw any such RGB source. Subtractive colour mixing, that employs filters in front of white light, is far less efficient than additive colour mixing, yet the proposed regulations will allow this while banning the more efficient alternative. The culture and entertainment industry requires both these tools at its disposal, and sufficient exemptions must be made for this technology.
3. The regulations propose a limit on stand-by power to 500mW. In a simple household or retail store appliance this is achievable. In luminaries used by the culture and entertainment sector, this is highly unlikely to be possible. The luminaries in question need to remain powered on in order to continuously listen to updated control data (this is how large artistic lighting installations are controlled), as well as powering a myriad of other functions besides the light source itself, such as position, patterns & shapes and the onboard control computer required for smooth and reliable operation of modern luminaries for cultural and entertainment purposes.

In addition to these specific technical concerns, two more principal considerations should be taken in to account.



4. Stage lighting represents a relatively small proportion of the total energy consumption in cultural and entertainment venues. Studies have shown that, due to the nature of how stage lighting is used in these venues, the power consumption for stage lighting is in the range of 5 – 10% of the venues total power consumption. Consequently, costly changes to the current range of equipment found in cultural and entertainment venues all around Europe will yield a very small saving in total power consumption.

(<http://www.lightingandsoundamerica.com/reprint/EnvironmentStageLight.pdf>)

5. Artistic concerns:

- a. Variety of artistic expressions. The artistic foundation for lighting design is based on different light sources that render different quality of light, which opens up for a variety of artistic expressions. Limiting the variety of light sources available limits the range of artistic expression available to lighting designers.

- b. Reproducing historical lighting designs. The art of lighting design has a history that traces the history of theatre from the first stages lit by sunlight, through gaslights and candles, to modern SSL luminaries. Technical development has made most of these luminaries obsolete, but some early luminaries, e.g. low-pressure sodium (a source widely used for street lighting, that limits colour reproduction to create an almost monochrome light) are still used to create unique effects impossible to faithfully recreate with any other luminaries. Legislation that makes it impossible to utilize historical light sources will also make it impossible to accurately recreate historical lighting designs.

Potential impact on our industry

The proposed regulations will potentially have a devastating impact on the cultural, entertainment, corporate event, exhibition and television lighting industry. Events such as the Eurovision Song Contest and similar shows would be impossible to pull off without violating these new regulations at multiple points.

Clubs, stages, theatres, venues, festivals and outdoor events throughout Europe will suffer, as the costs of upgrading and replacing fully functional equipment will seriously strain the economy of an entire sector as well as creating enormous amounts of technical and electrical waste from, in many cases nearly brand-new, equipment.

It is our understanding and belief that the authors of the Eco-design plan have not intended to harm our industry in this potential way, we are simply collateral damage in a grander process, which intent we fully support.

Transparency notice

This document is written by lighting designer Hans Peter Jenssen (an employee of Bright Norway) in collaboration with independent lighting designer Kyrre Heldal Karlsen and Musikkutstyrsordningen (the national government funded organization for subsidizing technical equipment to concert venues in Norway).



List of co-signers

These are the main organizations and businesses co-signing this response. Together they represent the majority of the Norwegian live performance field for music, dance and theatre, which will be affected by the proposed regulations. Individual, private co-signers are not included in this list.

Atendi Scandinavia – Distributor of lighting equipment with 25 employees in Norway, Sweden and Denmark.

For more information visit <http://atendi.no/>

BandOrg – Represent 5.000 musicians and 1.100 bands/artists from all over Norway.

For more information visit <http://www.bandorg.no/>

Bransjeforeningen for sceneteknisk produksjon – The largest interest group for rental houses in Norway with 25 companies as members, representing 650 employees.

For more information visit <http://www.bfsp.no/>

FolkOrg – Norwegian National Association for Traditional Music and Dance, representing 4.500 individual members, more than 160 local organizations, 26 folk music clubs and 23 festivals across Norway.

For more information visit <http://folkorg.no/>

GramArt – GramArt is the biggest organization for performing artists in Norway, representing more than 3000 members.

For more information visit <https://www.gramart.no/>

Lysligaen – A community of more than 2.000 lighting professionals in Norway.

For more information visit <https://www.facebook.com/groups/301954843190805/>

M12 Gruppen – Provide lighting designers, consulting services and technical installations to artists, theatres and concert venues.

For more information visit <http://www.masikk.no/>

Music Norway – Music Norway is funded by the Ministry of Culture and support initiatives that build growth and internationalization to the Norwegian music industry by offering support programs, competence building, facilitation of networking arenas and counselling to the music business.

For more information visit <http://musicnorway.no/>

Musikernes Fellesorganisasjon (MFO) – MFO is Norway's largest trade union for performing artists and educators. MFO also organize sound- and lighting designers and is a member of the Norwegian Confederation of Trade Unions (LO). MFO has more than 8.600 members.

For more info, visit www.musikerorg.no

Norske Konsertarrangører – The largest interest group for concert venues and festivals in Norway with more than 350 organizations as members.

For more information visit <https://www.konsertarrangor.no/>



Norske Kulturhus - Represents 129 cultural venues across Norway, with more than 14.5 million visits each year.

For more info visit <http://www.kulturhus.no/>

Norske Scenografer - Norwegian Scenographers Association is Norway's largest association for scenographers, costume designers, video designers, puppetry, lighting designers and sound designers.

For more information visit <http://scenograf.no/>

Norsk jazzforum – The Norwegian Jazz Forum is a non-profit organization, which aims at connecting the Norwegian jazz scene. Its current membership consists of approximately 25 jazz festivals, 80 jazz clubs, 130 big bands, 700 professional musicians and 100 jazz students.

For more information visit <https://english.jazzinorge.no/>

Norsk musikkråd - The Council for Music Organizations in Norway (CMON) has 33 member organizations with more than 140.000 individual members within different musical and cultural activities.

For more information visit <http://www.musikk.no/nmr/english/>

Norsk teater- og orkesterforening – Association of Norwegian Theatres and Orchestras is an employers and industry association, that represents 44 cultural organizations across Norway within the fields of theatre, music, opera and dance.

For more information visit <http://www.nto.no/English>

Norsk Viseforum - Norwegian folk singers association. Organizing 20 concert promoters and 3 festivals in Norway and hundreds of performers within the genre.

For more information visit <https://viser.no/>

nyMusikk - Norway's center for experimental music and sound art with 11 local branches. All branches commission, produce, curate and present new music and sound-based work throughout Norway.

For more information visit <http://nymusikk.no/en/om-oss>