

Environmental and Social Data Sheet

Overview

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| Project Name: | <i>SOLID STATE LIGHTING (SSL) R&D</i> |
| Project Number: | <i>2013-0601</i> |
| Country: | <i>Germany</i> |
| Project Description: | <i>The project concerns the R&D activities carried out in the field of Opto Semiconductors (OS) for Light Emitting Diodes (LED) in the visible as well as invisible light spectrum. The new products will help to replace the traditional lamps still used in many areas by more energy efficient lighting solutions. The R&D activities will be implemented during the years 2014 – 2016 mainly in Germany.</i> |
| EIA required: | No |
| Project included in Carbon Footprint Exercise ¹ : | no |

Summary of Environmental and Social Assessment, including key issues and overall conclusion and recommendation

The project activities do not fall under Annexes I and II of the EU Directive 2011/92/EC, and are therefore not subject to mandatory Environmental Impact Assessments. The proposed investments will take place mainly inside buildings at existing R&D facilities already being used for similar activities, and are not expected to have a significant environmental impact on the surroundings.

The promoter is also very active and ambitious in its overall corporate social standards (e.g. UN Global compact) and its production sites are certified according to ISO 14 001 and OHSAS 18 001.

Today artificial light contributes to about 15% of global energy consumptions. Therefore the advanced and energy efficient LED lighting solutions, which take only 20% of energy compared traditional bulbs, will help to reduce the overall CO2 emissions caused by artificial light.

Therefore the project has been classified as acceptable in environmental terms.

Environmental and Social Assessment

The promoter is very active and ambitious in relation to sustainability. The high importance given to this topic is also reflected in the creation of a dedicated unit that deals specifically with sustainability management and is directly reporting to the CEO. Since 2005 OSRAM is also a member of the UN Global Compact initiative. The key focus of the sustainability management is on both the product design including recycling and production processes (reduced/efficient resource use such as water and waste management) as well as the production facilities (energy and CO2 consumption). Over the last years OSRAM has received several environmental awards such as the “Green supplier of the year”, the “Energy Star” or the “Green Business Index Award”.

¹ Only projects that meet the scope of the Pilot Exercise, as defined in the EIB draft Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: above 100 000 tons CO2e/year absolute (gross) or 20 000 tons CO2e/year relative (net) – both increases and savings.

The promoter is also contributing to tackle the challenge of global warming through the development and production of very efficient lighting solutions. Therefore the development of new products is driven by objectives among which efficiency, life time and hazardous substances are key criteria. Such criteria need to improve from one product generation to the next one.

Further areas of importance for the promoter are the environmental management systems as well as high health and safety standards at all production sites. Therefore all sites are required to implement the procedures and measures according to ISO 14 001 and OHSAS 18 001. As Germany has also implemented the WEEE directive, the promoter provides for professional recycling through local partners of their products in Europe.

OSRAM also carried out a lifecycle analysis of the different lighting technologies according to ISO 14040 und 14044. The results of this analysis suggest that less than 2% of the energy consumption of a lamp is related to the production process. Also it has proven that LED and also Compact Fluorescent Lamps consume just 20% of energy compared to traditional bulbs and 30% compared to Halogen Lamps during their lifetime.