



Regional Conference Focuses on the Transition to Energy Efficient Lighting in Southeast Asia

Government Officials Discuss the Phase-Out of Incandescent Light Bulbs by 2016 to Save Over \$1.6 billion in Energy Costs

Paris, 9 November 2011 – At the United Nations Environment Programme (UNEP)/GEF en.lighten Workshop in Singapore on 4 November 2011, government representatives from 18 countries in Southeast Asia voiced their support for the phasing out of incandescent light bulbs. Such a move could save the region an estimated over US\$1.6 billion a year in energy costs.

The energy efficiency officials and climate change focal points that participated in the regional event included: representatives from the Ministries of Energy, Environment, climate change negotiators, national utilities, manufacturing, international organizations and NGOs. They unanimously agreed that the phase out of incandescent lamps is one of the easiest ways to reduce CO₂ emissions and achieve significant energy and financial savings.

The global transition to efficient lighting will follow an integrated approach which includes minimum energy performance standards; quality control mechanisms; and, policies and procedures which address all aspects of replacement products and practices, including sound disposal and recycling.

UNEP and partner organizations addressed countries in the region and key regional stakeholders and explored opportunities for governments to participate in a UNEP/GEF led globally coordinated effort to transition to efficient lighting as a key efficiency and climate mitigation measure. The emphasis was on the phase-out of general purpose incandescent light bulbs, the most common type for consumers.

en.lighten is an initiative funded by the Global Environment Facility (GEF), implemented by the United Nations Environment Programme (UNEP) in partnership with leading global lighting manufacturers (Philips and OSRAM) and the National Lighting Test Center of China (NLTC), to accelerate market transformation of efficient lighting technologies on a global scale.

UNEP has created a Centre of Excellence on Efficient Lighting, consisting of top international experts, to provide guidance and technical support to countries that partner with the en.lighten initiative to develop national efficient lighting strategies and plans.

The en.lighten global partnership aims to restrict the global supply of inefficient light bulbs and promote market adoption of most efficient alternatives by way of an “integrated approach” including:

- Technical support developed by international lighting experts for countries willing to implement national efficient lighting strategies and join the en.lighten partnership
- Adoption of globally harmonized minimum energy performance standards (MEPS) leading to the phase-out of all incandescent lamps by 2016

- Establishing monitoring, verification and enforcement programs in countries to ensure compliance with global standards and eliminate quality products from the marketplace
- Supporting countries to establish comprehensive waste management efforts including: collection, sustainable disposal and/or recycling of spent lamps
- Country support activities such as communications best practices, policy frameworks and innovative finance mechanisms to encourage and support the transition to efficient lighting

Country Lighting Assessments have been generated for 100 countries around the world to explain the significant savings potential of the transition to more efficient lighting.

In the eleven countries from Southeast Asia analyzed, electricity consumption is over 22 Twh producing about 16 million tons of CO₂ per year. Phasing out inefficient lighting in the region would save around 16.5 Twh of electricity (an average of nearly 75%) and slash 11.8 Mt of CO₂. This is equivalent to removing about 2.9 million vehicles off the road.

Indonesia could save 1 billion USD yearly in reduced electricity bills. Around 8% of electricity consumption in Indonesia originates from incandescent lamps. This would save the equivalent emissions of 2 million mid-sized cars per year.

Many countries in the region have already begun initiatives to transition to efficient lighting, yet an integrated and more coherent approach is needed in order to ensure that efficient and good quality products are available in the region.

The Philippines became one of the first Asian countries to transition to efficient lighting. In 2005, the Philippine Efficient Lighting Market Transformation Project (PELMATP) integrated various energy efficient lighting programs and practices into standards, labeling programs and promotional activities. PELMATP successfully completed its activities in June 2011 having met its objectives on energy savings (7,366 GWH equivalent) and greenhouse gas emission reduction (3.98 million tonnes of CO₂).

In 2010, the Malaysian Government committed to reduce carbon intensity by 40% by 2020. The phase-out of incandescent lamps, to be implemented in two stages, is a cornerstone of this policy. The first phase, from January to December 2011, involves halting all production, import and sales of >100 W bulbs. The second phase, from January 2012 until the end of 2013, will see an end to the production, import and sales of all other light bulbs.

In order to ensure sustainable programs and results, the countries in Southeast Asia must quickly adopt strategies to address their own situation and resources. The UNEP/GEF en.lighten initiative offers a comprehensive and rapid support plan, through its Global Partnership Program, for countries to access the regulatory or voluntary-based elements that they may lack without having to recreate what has already been established by other governments.

EDITORS' NOTES:

- Over 20% of the electricity consumed in Laos originates from incandescent lamps.
- Electricity consumed by incandescent lamps in Vietnam amounts to 2.5% of total electricity consumption.

- Using current economic and energy-efficiency trends, it is projected that global demand for artificial light will be 60% higher by 2030 if no switch occurs
- Lack of awareness about the energy saving and financial benefits of efficient lamps is a key deterrent for their market penetration in developing countries
- Incandescent lamps have already been phased-out or are scheduled to be phased-out in most OECD countries, Brazil, Mexico, South Africa, Argentina, Senegal. Malaysia, Philippines and other developing countries
- The International Energy Agency (IEA) estimated in 2007, the total electricity consumption due to lighting at 2650 Twh. This represents almost 19% of global electricity use (15-17% greater than nuclear or hydro power)
- The total global GHG emissions accrued to lighting electricity consumption was estimated in 2005 by the IEA at 1,900 MtCO₂ of which grid based lighting systems contribute to 1,528 MtCO₂. This is equivalent to approximately 8% of world emissions or 70% of the world passenger vehicle emissions
- Up to 95% of the energy emitted by incandescent lamps is heat, and their efficiency is inherently low. In comparison, incandescent bulbs last around 1,000 hours which is significantly shorter than energy saving lamps which can last up to 12,000 hours. CFLs can now also be dimmed.
- Like all fluorescent lamps, CFLs contain mercury, which complicates their disposal. Mercury is a hazardous substance in fluorescent lamps. en.lighten will support countries in setting up sustainable end of life approaches for spent lamps.
- The average mercury content in a CFL bulb is about 3 mg – roughly the amount it would take to cover the tip of a ball-point pen. By comparison, older thermometers contain 500 mg of mercury – the equivalent of more than 100 CFLs
- Experts emphasize that mercury is also emitted from coal-fired power stations. Studies indicate that the level of emissions from power stations linked with lighting the world's old bulbs are far higher than those linked with the disposal of energy efficient bulbs

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ABOUT UNEP

Created in 1972, UNEP represents the United Nations' environmental conscience. Based in Nairobi, Kenya, its mission is to provide leadership and encourage partnership in caring for the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations. UNEP's Division of Technology, Industry and Economics - based in Paris - helps governments, local authorities and decision-makers in business and industry to develop and implement policies and practices focusing on sustainable development. The Division leads UNEP's work in the areas of climate change, resource efficiency, harmful substances and hazardous waste.