

Announcing a joint International Energy Agency, European Commission JRC and CEN-Star Trend Analysis workshop on:

CFL Quality and Strategies to Phase-out Incandescent Lamps

The challenge to reduce reliance on incandescent lighting

First developed in the 1870s and only slightly improved since, incandescent lamps constitute a major source of energy waste. With today's incandescent lamps 95% of energy use is converted into heat and only 5% into light. This would not matter were it not for the fact that incandescent lamps are the most commonly installed lamp type in the world. The IEA's study, *Light's Labour's Lost: Policies for Energy-efficient Lighting*¹, estimates that incandescent lights are responsible for 7% of global electricity consumption (almost half the output of all nuclear power). In 2005 incandescent lamps consumed 970 TWh of final electricity and gave rise to 560 Mt of CO₂ emissions. About 61% of this demand was in the residential sector with most of the rest in commercial and public buildings. If current trends continue incandescent lamps are forecast to consume 1610 TWh of electricity by 2030. Higher efficiency alternatives to incandescent lamps have been available since the commercialisation of the compact fluorescent lamp (CFL) in the 1980s. CFLs use between a quarter and fifth of the energy of equivalent incandescent lamps and so constitute a much more efficient alternative. They are also far more economic over the life cycle of the lamp, such that with typical tariffs and lamp costs a consumer would save over two thirds of the total cost of the lighting service by using CFLs in place of incandescent lamps.

A call to phase out incandescent lamps

Despite technological and commercial advances CFLs are still struggling to overtake incandescent lamps in many core markets; not least because of the existence of some important market barriers. Sales of CFLs have been rising strongly in recent years but in 2003 they still only accounted for about 8% of the volume of incandescent lamps, albeit that this translates into roughly 30% of screw-based lamp sockets being taken by CFLs because of their significantly longer lifetimes. Barriers include: higher initial cost, low consumer awareness of the balance of benefits and highly variable product quality. But CFLs are no longer the sole alternative to traditional incandescent lamps: new intermediate or high efficiency solutions are reaching the market based on infra-red halogen or solid state lighting technology, each of which present advantages and limitations compared to CFLs. In recognition of the breadth of alternative technology and the negative impacts of continued reliance on incandescent lighting a major part of the global lamp manufacturing industry recently called for joint action to replace incandescent lamps with energy-efficient alternatives within ten years. This call echoes similar appeals from international agencies such as UNDP and UNEP and is consistent with proposals from the IEA under the G8 Gleneagles Programme concerning the adoption of best practice in lighting energy-efficiency policy (see Background below).

So has the time come to phase out the humble incandescent lamp and if so how should government work with industry and other actors to bring this about?

This workshop aims to explore this issue and begin a process that will enable coordinated international action to reduce reliance on incandescent lighting. In focusing the first session on CFL quality issues it aims to address one of the key barriers holding back the adoption of more efficient residential lighting. Identification of strategies to address this and other barriers will be one of the key themes to be considered.

¹ produced in support of the G8 Plan of Action

Background

This workshop has its origins in three ongoing international activities. First, under the [G8 Gleneagles Plan of Action](#), the IEA is working with partners around the globe to focus on climate change, clean energy and sustainable development. The [IEA's G8 Gleneagles Programme](#) is promoting energy-sector innovation, better practice and use of enhanced technology. Within this rubric the agency has already made broad-based concrete recommendations to the G8 concerning the adoption of best practice in energy efficient lighting. This workshop will directly contribute to the definition of best practice policy responses towards incandescent lighting. Second, in recognition that the variable quality of CFLs constitutes a key barrier to the broader adoption of CFLs in OECD economies the Joint Research Centre of the European Commission has instigated a CFL quality charter programme. This broad topic is a focus of the 1st session. Third, within the framework of the European Climate Change Programme, EU states identified residential lighting as an important opportunity to realise cost-effective CO₂ abatement. This led to the launch of the ENERLIN project, which aims to develop a coherent strategy to transform the residential lighting market. This workshop is organised as a joint activity of these three initiatives but aims to provide an open forum through which actors in these and other concerned international fora can come together to accelerate the replacement of incandescent lighting with higher efficiency alternatives.

Goals and outcomes

The IEA estimates that were all incandescent lamps to be replaced with CFLs by 2030 it would produce annual savings of roughly 1200 TWh of electricity and 700 Mt of CO₂ emissions. In recognition of the importance of the opportunity and the potential for enhanced government action this workshop brings together leading international policy makers and experts from the International Energy Agency's 26 Member Countries to discuss the main issues pertaining to reduced reliance on incandescent lighting. The findings of this workshop will be central to the formulation of government thinking with regard to incandescent replacement strategies and will directly contribute to the following:

- The IEA's response to its mandate under the G8's Gleneagle's Initiative on Climate Change, Clean Energy and Sustainable Development
- The future direction of IEA Implementing Agreements and international R&D effort – especially concerning the activities of a proposed new Implementing Agreement looking at the energy efficiency of end-use equipment
- The orientation and design of lighting energy efficiency policies within IEA and EU member countries
- The preparation of the IEA's 2007 Energy Ministerial Meeting
- Potential international initiatives in this general area

Dates and location

The workshop will take place on February 26 2007 at the IEA headquarters in Paris at:

9 rue de la Fédération, 75739 Paris Cedex 15, France

Workshop attendance

Attendees will comprise a mixture of experts, policy makers and private sector actors in this field. Attendance at this high-level workshop is free and is open to government and non-government attendees alike; however, numbers of the latter will be restricted on a first come first served basis to ensure that sufficient allocation remains for attendees from IEA government committees. Up to 65 participants are expected.

To express your interest in participating please send an email, by February 2nd 2007, to:

Charlotte Forbes at Charlotte.Forbes@iea.org

You will be notified of your registration status shortly after that date.