Mapping & Benchmarking the Impact of “Phase-out” on the Lighting Market

The IEA’s 4E Mapping and Benchmarking Annex provides policy makers with evidence based comparisons of the performance of products sold in various national markets. This allows benchmarking of the success of national policies in managing product energy consumption and efficiency and enables identification of opportunities to further encourage the uptake of energy efficient products.

This briefing describes the outcomes of the international comparison of the impact of the phase-out of inefficient lighting products on national lighting markets. The analysis includes information drawn from Australia, Austria, Canada, Denmark, EU, France, Republic of Korea, Taiwan, UK and USA.

Observations for Policy Makers

- On the surface, the regulatory actions to phase out the least efficient lamps from individual markets appear very similar. However, there are significant differences in the detail of the regulations which may lead to considerable variations in policy outcomes. Harmonisation of requirements could yield higher savings, better compliance, improved enforcement opportunities and cost reductions for consumers.

- The introduction and regular update of Minimum Energy Performance Standards (MEPS) is highly successful in driving improvements in the average efficiency of lighting products.

- Significant delays between the date of announcement, and the date at which regulations come into force may result in the stockpiling of inefficient lamps which will delay the impact of the policy action.

- In countries where recent regulation is most advanced (Australia and the UK), there is clear evidence that a higher proportion of the market than expected is migrating from traditional incandescent lamps to halogen lamps rather than CFLs.

- At present there appears to be little penetration of LEDs into the domestic lamp sector.

- As a result of the phase-out of inefficient lighting with longer lasting alternatives such as CFLs, sales of lighting products will fall dramatically in the near future.

More Information

All publicly available Annex mapping and benchmarking outputs are available on the Annex website at http://mappingandbenchmarking.iea-4e.org.
For further information email: contact@mapping.iea-4e.org

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Approach to Regulation and Stringency

While superficially similar, mandatory regulations (MEPS) to phase-out inefficient lighting vary significantly between regions. Differences include: the stringency at which the required performance levels are set; the range of light outputs and products included in the regulations; and the products exempted or requiring lower performance levels. Therefore, a number of countries/regions are failing to capture the full potential of energy savings or match those achieved elsewhere.

Potential Short Term Negative Policy Impact

There has been a strong consumer backlash against the impending removal of inefficient lighting in Austria resulting in a doubling of incandescent lamp sales and stockpiling in the year prior to regulations taking effect (2009). Governments need to be aware and take steps to minimise this situation, for example by implementing policy as soon as possible following initial announcement.

Impact of Phase-out on Efficiency

The performance of Korea in managing its lighting market has resulted in the average efficiency of lamps sold being twice that of any other region, even those that have already seen a policy impact. This strong performance appears due to the extended period over which Korea has been regulating less efficient lamps (beginning in 2003). However, the impact of phasing out incandescent lamps can now also be seen in Australia, Denmark, the UK, and beginning to be evident across the EU.

Impact of Phase-out on Lamp Sales

The areas where policy was implemented earliest (Australia, Denmark, Korea and the UK) have seen sharp falls in the sales of incandescent lamps. However, halogen lamps comprise a significant proportion of the replacement purchases. In the majority of cases, these halogen lamps are only slightly more efficient than the lamps they replace and so the full potential energy savings that could be achieved through switching to CFLs have not been realised. There is little sign of LEDs having a significant penetration of the domestic lamp market.