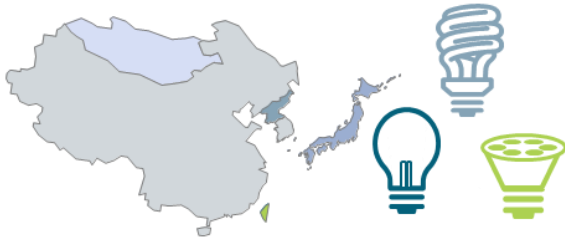
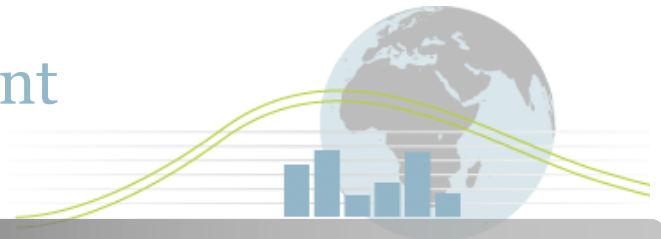


# 4E

## Mapping Document



Country:	Taiwan
Technology:	Domestic Lighting
Sub Category:	All domestic lamps

### Introduction

The first stage in the Mapping and Benchmarking process is the definition of the products, i.e. clearly setting the boundaries that define the products for use in data collection and analysis. The definition ensures that comparisons between the participating countries are performed against a specific and consistent set of products/criteria.

The summary definition for this product is:

*“Lighting products that perform the vast majority of illumination applications within the domestic (household) sector<sup>1</sup>”*

Hence data was sought (where possible) for the following lighting product types (subdivided by wattage buckets):

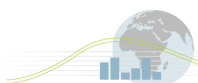
- Mains Voltage Incandescent
- Mains Voltage Halogens (Single and Double Ended)
- Low Voltage (12V) Halogen
- Pin Based and Self Ballasted CFLs
- Linear Tubes (T12, T8 and T5) \*
- Retrofit LEDs
- Dedicated LEDs

*\* NOTE: The subsequent analysis in the associated benchmarking report<sup>2</sup> excludes linear fluorescent tubes as, for those countries submitting data, these lamps constituted a small proportion of use in the domestic sector.*

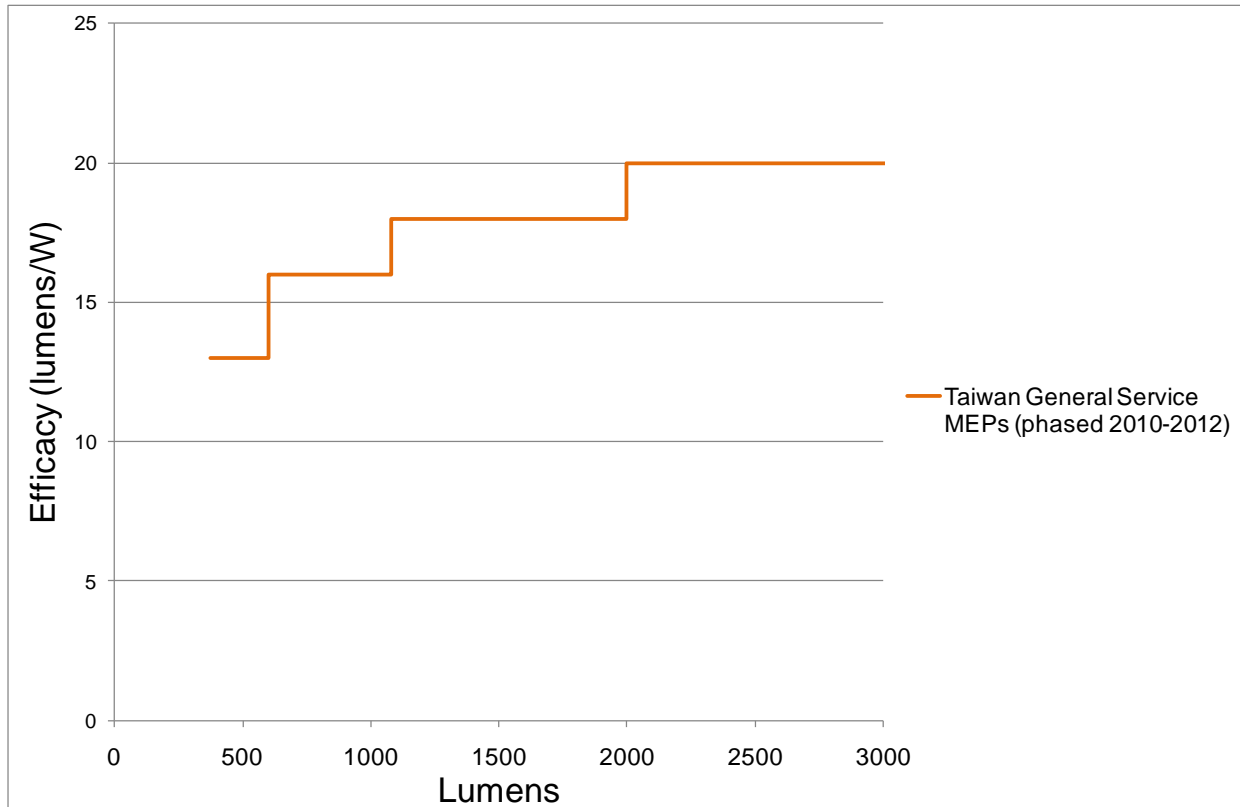
A full product definition is provided at the annex website<sup>2</sup>.

<sup>1</sup> Most 'domestic lighting' products are also used in other areas (e.g. hotels, shops, offices, etc). However, given the functionality of these products is virtually the same in all installations, and in almost all participating countries it will be impossible to separate sales to the domestic sector from sales elsewhere, all products shown will be considered as “domestic lighting” irrespective of final installation point.

<sup>2</sup> see <http://mappingandbenchmarking.iea-4e.org/matrix?type=product&id=5>



## Phase out regulations for domestic lighting - Taiwan

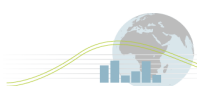


### Key notes on Graph (see notes section 1)

At the time of preparation, it is believed Taiwan are planning to phase-out inefficient lighting in 2012. The following outlines the anticipated minimum requirements:

Rated lamp wattage, P	Minimum lamp efficacy (lm/W)
25W less-than-or-equal-to P < 40W	15.0
40W less-than-or-equal-to P < 60W	18.0
60W less-than-or-equal-to P < 100W	20.0
P greater-than-or-equal-to 100W	22.0

However, sale of no compliant lamps will be prohibited from supermarkets, shopping malls, department stores and tourist hotels and department stores starting April 2010.



## Notes on data

### Section 1: Notes on Phase out regulations

#### 1.1 Overview<sup>3</sup>

This standard will specify the minimum energy efficiency requirements of incandescent lamps for general service. A 3-year transitional period will be allowed for manufacturers to adapt to the proposed requirements. Test methods of the proposed minimum energy efficiency requirements would be based on related national standards.

#### Proposed draft of the minimum energy efficiency requirements of Incandescent lamps for general service

Effective date: 3 years after announcement.

Rated lamp wattage, P	Minimum lamp efficacy (lm/W)
25W less-than-or-equal-to P < 40W	15.0
40W less-than-or-equal-to P < 60W	18.0
60W less-than-or-equal-to P < 100W	20.0
P greater-than-or-equal-to 100W	22.0

#### Notes:

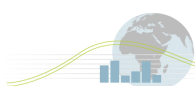
1. The above minimum energy efficiency requirements apply to the products within the scope of CNS 298 “Incandescent lamp bulbs for general lighting service”, CNS 11006 “Small lamp bulbs for household use” and CNS 5513 “Traffic signal lamps” ,with which rated lamp wattage equal to or higher than 25W.
2. The lamp efficacy (lm/W) is the ratio of lamp lumen output to the lamp power input. The testing method of lamp lumen output and lamp power input is specified in CNS 3891?Method of test of incandescent lamps for general lighting service?, CNS 11006 ?Small lamp bulbs for household use? and CNS 5513 ?Traffic signal lamps?.
3. The calculated values of lamp efficacies shall not be less than the numbers in the above table and shall be greater than 95% of the marked values on products. The calculated lamp efficacy value is rounded to the first decimal place.

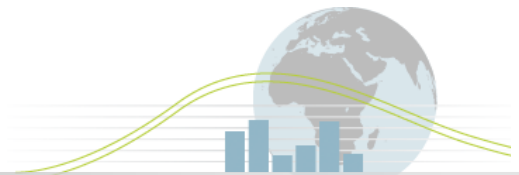
#### 1.2 Additional Information

At the time of writing, it is still not clear if the regulations outlined above are yet in place although the Energy Bureau of Taiwan are know to have set a provisional date for the phase-out of incandescent lamps by 2012.

However, sale of no compliant lamps will be prohibited from supermarkets, shopping malls, department stores<sup>3</sup> and tourist hotels and department stores starting April 2010.

<sup>3</sup> This overview is sourced from CLASP at: <http://www.apec-esis.org/programinfo.php?no=1255>





It is also of note that:

- Taiwan has been an early adopter of efficient lighting. In 2008, sales of efficient lighting (primarily CFLs) exceeded the sales of incandescent lamps
- Taiwan has a number of efficient lighting stimulus measures in place including a commitment to replace all street lighting (approximately 1.5 million lamps) with CFLs from 2011 onward.

