

Implementation of Minimum Energy Efficiency Performance Standards for CFL with Integrated Ballast

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In the last years, the number of compact fluorescent lamps - CFL sold in Brazil has increased significantly, reaching the mark of 180 million units in 2008 (Source: Alice / Web MDIC - 2010), what reflects on its average ownership. According to studies carried on by Eletrobras/Procel, the average household ownership of fluorescent lamps in 1988 corresponded to less than 10% of the incandescent, while in 2005 these rates were equal.

Unfortunately, in the same period, the performance and quality of this equipment were not improved at the same proportion, what led the Brazilian government to launch a law in 2006 (the Interministerial Ordinance No. 132) which established minimum efficiency performance standards (MEPS) for CFL sold in Brazil.

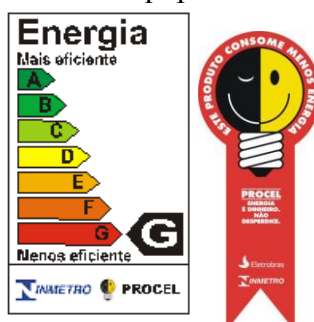
	Lamp Power (W)	MEPS (lm/w)
Bare CFL	Lamp Power \leq 8 W	43
	8 W < Lamp Power \leq 15 W	50
	15 W < Lamp Power \leq 25 W	55
	25 W < Lamp Power	57
Covered CFL	Lamp Power \leq 8 W	40
	8 W < Lamp Power \leq 15 W	40
	15 W < Lamp Power \leq 25 W	44
	25 W < Lamp Power	45

Table 1 – Minimum efficiency performance standards for CFL in Brazil.

Source: Interministerial Ordinance No. 132 of 2006

Since then, a huge transformation in the CFL market was noticed in Brazil, following the same practice of other countries, which use this public policy mechanism to conserve energy by banning inefficient products.

In the Brazilian case, the publication of Law 10.295 of 2001, also known as the Energy Efficiency Law, has enhanced the Brazilian Labeling Program as well as the Procel Energy Saving Seal Program, which is coordinated by Eletrobras in order to help the consumers to identify the most efficient equipment.



National Energy Conservation Label – ENCE and Procel Seal

This process has been progressing with the approval of new MEPS for CFL, established in the MEPS Target Plan - Interministerial Ordinance No. 1008 of 2010, which will take effect in July/2012 and is presented in table 2.

	Lamp Power (W)	MEPS (lm/w)
Bare CFL	Lamp Power \leq 6W	47
	6 W < Power \leq 8W	49
	8 W < Power \leq 12W	54
	12 W < Power \leq 15W	56
	15 W < Power \leq 18W	58
	18 W < Power \leq 25W	59
	25 W < Power	60
Covered CFL	Power \leq 8 W	40
	8 W < Power \leq 15 W	40
	15 W < Power \leq 25 W	44
	25 W < Power	45

Table 2 – Minimum efficiency performance standards for CFL in Brazil from 01/07/2012.

Source: Interministerial Ordinance No. 1008 of 2010

It is important to point out that the implementation of the Law requirements is due to the infrastructure provided by Eletrobras/Procel, which has been investing in test laboratories countrywide. In the lamps case, it has already been invested about US\$ 1 million in equipment acquisition, for five laboratories.

This process has taught us some lessons, showing that the MEPS establishment is a win-win process, in which several segments of society are benefited, such as:

- Manufacturers/ importers, by differentiating and improving the performance of their equipment, thereby raising their competitive advantage;
- Consumers, as they can buy equipment that consume less power, thus providing financial savings on the expenditure of energy;
- The government, which may postpone investments in the energy sector due to the energy savings; and
- The society, since it contributes to assure the energy supply in the future and to the preservation of the environment.