

CASE STUDY OF A SUCCESSFUL AUSTRALIAN NATIONAL ATMOSPHERE/AIR POLLUTION PROGRAMME/STRATEGY

INTERNATIONAL INITIATIVE FOR ALIGNED TESTING METHODS AND PERFORMANCE REQUIREMENTS FOR COMPACT FLUORESCENT LAMPS

1. The problem or issue addressed:

- *Energy for Sustainable Development* including energy efficiency, technology innovations and transfer, and energy sector reforms
- *Industrial Development* including resource use efficiency in industry, and cleaner industrial technology development and transfer
- *Climate Change Mitigation* policies and measures, eg developing and implementing standards on either a voluntary or regulatory basis

The initiative was launched by Australian Greenhouse Office, Department of the Environment and Heritage. The AGO saw an opportunity presented by world lighting experts gathering in Shanghai China in May 2005 for the *Right Lights 6* conference to launch this proposal, long discussed by technical experts as feasible but not previously organized as all core participating stakeholders had not been located in a convenient forum to commit their support. AGO is examining this case study as a model for similar work dealing with other product types.

2. Name of the programme:

- Short Title: International CFL Harmonization Initiative
- Long Title: International initiative for aligned testing methods and performance requirements for compact fluorescent lamps

3. **Timeframe:** 3 years Year started: 2005

4. **Status:** Ongoing Completed in year _____

5. Main objectives:

- Create a uniform testing methodology, covering the performance features of self-ballasted CFLs, suitable for national and international standard bodies to measure CFL performance.
- Identify a number of performance specifications for self ballasted CFLs to facilitate trade and possible rationalisation of CFL performance requirements by national efficiency programmes.
- Promote these initiatives to the international community

6. Lead institution:

Co-ordinated by the Australian Greenhouse Office, Department of the Environment and Heritage.

7. Other implementation arrangements and stakeholders:

Five international Working Groups have been established that are being led and facilitated by the following Australian, Chinese, European, US and international organisations:

- Australian Greenhouse Office, Australia

- China National Institution of Standardization (CNIS)
- China Certification Center for Energy Conservation Products (CECP)
- Collaborative Labelling and Standards Program (CLASP), international NGO JRC (EU)
- Market Transformation Program, United Kingdom
- Renewable Energy and Energy Efficiency Program (REEEP), international NGO

In addition, the initiative is publicly supported by almost 20 different organisations, including public, private (industry, industry associations and academia) and NGOs.

8. The results achieved:

Milestones:

- CFL Compact No 1 released in Shanghai (May 2005)
 - supported by almost 20 different organisations from 13 economies
- Five international working groups set up to focus on priority areas (May 2005)

This measure will result in :

- Coordinated activity aiming to create a uniform testing methodology, covering the performance features of self-ballasted CFLs, suitable for national and international standard bodies to measure CFL performance.
- Identification of a number of performance specifications for self ballasted CFLs to be included in the test method and performance requirements.

Other benefits:

- CFLs are up to 4 times more efficient than normal incandescent bulbs and last up to 10 times longer. This international CFL initiative will also:

Technical

- Facilitate trade and possible rationalisation of CFL performance requirements across economies lowering business costs with potential to lower consumer purchase prices
- Improve the transparency and comparability of testing methodologies and performance requirements for CFLs
- Improve the energy efficiency of CFLs sold globally
- Encourage capacity building in manufacture and independent testing facilities

Social

- Improve and accelerate access in developing and developed countries to good quality CFLs (ie reliable, affordable and energy efficient ones)
- Actively encourage information sharing between interested parties throughout the world

Economic

- Reduce the demand for energy used by CFLs
- Reduce production costs as manufacturers will be able to reduce the number of product lines they need to produce

Environmental

- Reduce greenhouse gas emissions

- Reduce waste (ie only need to dispose of 1 CFL for up to 10 incandescent light bulb)

9. The relationship of the programme to internationally agreed goals and targets:

These initiatives are supported by the Johannesburg Plan of Implementation (JPOI), particularly:

- paragraph 10(a) aiming for measures to provide assistance and mobilize resources to enhance industrial productivity and competitiveness as well as industrial development in developing countries, including the transfer of environmentally sound technologies on preferential terms;
- paragraph 20(h) relating to initiatives assisting with the establishment domestic programmes for energy efficiency, including accelerating the deployment of energy efficiency technologies; and
- paragraph 38(e) referring to the development and transfer technological solutions to climate change.

CFLs are now a highly significant globally traded commodity, and in many countries the sales value of CFLs exceeds the sales value of equivalent incandescent lamps. As demonstrated in **Figure 1**, the volume of production, the energy and environmental implications and the volume of international trade make this product type a high priority for concerted and coordinated international action.

Figure 1: Estimated Global Sales of Self-Ballasted CFLS, and Total Energy Consumption

