

# RESIDENTIAL LIGHTING



**Overview:** About 85 percent of residential lighting energy is used by incandescent light sources. Depending on the efficiency of the fixture, replacing incandescent bulbs with screw-based or pin-based compact fluorescent lamps (CFLs) can yield annual savings up to 110 kWh per light source. Although it is not feasible to replace every inefficient light source, even a fractional increase in the use of CFL light sources will result in significant national energy savings.

The Residential Lighting Initiative was launched in December 1994 to increase the production, distribution, purchase and installation of high-efficiency, screw-based compact fluorescent lamps (CFLs) in the consumer market. It was revised in December 2000 to include a focus on energy-efficient fixtures such as recessed cans, torchieres, ceiling fans and outdoor lighting.

A growing focus on increasing the availability of efficient decorative fixtures – such as chandeliers, sconces and pendants – began in 2002 with the launch of *Lighting for Tomorrow*, the National Lighting Fixture Design Competition (see next page).

**Initiative Goals:** The overarching goal of the initiative is to capture the significant energy savings available through increased and sustained market share of efficient lighting products. The following are the specific, long-term goals for the energy-efficient lighting market:

1. Consumers understand and value the benefits of energy-efficient lighting products.
2. Retailers promote and market energy-efficient lighting products.
3. Manufacturers market and promote energy-efficient lighting products.
4. Energy-efficient lighting products meet customer expectations in quality and performance.
5. Energy-efficient lighting becomes an option in new construction.

**Initiative Approach:** The approach advocated by this initiative consists of identifying and promoting energy-efficient products that are relevant to key lighting market segments and distribution channels.

By encouraging programs to commonly address both lamps and fixtures, the manufacturing and distribution players are more likely to respond consistently and favorably to the objectives of energy-efficiency programs.

**CFL Component:** ENERGY STAR® added CFLs to its list of labeled products in 1999. The CEE Lighting Committee – working with utilities, energy organizations and manufacturers – was instrumental in the development of this national CFL specification. With this specification, a single, consistent definition of energy-efficient CFLs was established, leading the way for the transformation of this national market.

CFL technology has evolved considerably over the past two decades. Many of the technical barriers that inhibited consumer acceptance – such as size, flicker, electrical interference and light

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output – have been removed. The CFL component of CEE’s Residential Lighting Initiative works toward removing the remaining barriers, which are more market- and education-based.

These barriers include:

- Price point not competitive with incandescent
- Consumers’ lack of product value due to long-term subsidies
- Product size and shape
- Inadequate consumer education
- General dislike of fluorescent lighting
- Product availability
- Light color

### ***Lighting for Tomorrow***

In 2002, CEE partnered with the American Lighting Association and the U.S. Department of Energy (represented by Pacific Northwest National Laboratory) to organize *Lighting for Tomorrow*, a national lighting fixture design competition for designers and manufacturers. Seventeen CEE members co-sponsored this effort.

The initial phase of the competition provided incentives for the development of innovative – and decorative – residential lighting fixtures that are also energy efficient (“energy efficient” was defined as meeting the efficacy requirements in the ENERGY STAR fixture specification). Four winners were announced in May 2004, three of which were subsequently introduced to the market.

A second phase of *Lighting for Tomorrow* ([www.lightingfortomorrow.com](http://www.lightingfortomorrow.com)), entailing a competition for indoor and outdoor fixture families as well as innovative technologies, was launched in January 2005. A third phase began in January 2006, recognizing a larger number of CFL fixture families, promoting them to retailers and builders through a Yearbook. The most recent competition was launched in January 2007. Organizers printed 10,000 copies of the 2006 Yearbook and are distributing it nationwide.

In addition to 25 CEE members, the U.S. Environmental Protection Agency and the ENERGY STAR program co-sponsored this latest phase of *Lighting for Tomorrow*.

The 2006 and 2007 efforts also included a new competition specifically for solid-state lighting. The objective of this effort is to increase industry knowledge of the new light source, focusing on a few niche applications for which the technology makes sense. Winners of the solid-state lighting competition are being promoted through trade press.

Through the *Lighting for Tomorrow* effort, CEE encourages its members to promote the manufacture and consumer acceptance of decorative energy-efficient fixtures, as well as the development of new technologies. Because the fixtures featured in the 2006 Yearbook are dedicated to energy-efficient CFLs, they represent a significant opportunity for sustainable savings and constitute an important offering for the new construction market. For further details, including information about past winners, see [www.lightingfortomorrow.com](http://www.lightingfortomorrow.com).

**Contact:** Additional information about CEE’s Residential Lighting Initiative is available at [www.cee1.org](http://www.cee1.org) or by contacting Rebecca Foster at (617) 589-3949, ext. 207, or [rfoster@cee1.org](mailto:rfoster@cee1.org).