



Quality Certification Institute

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# **Supporting Supporting Sustainable Investment in Energy Efficiency with Standardisation and Labelling Programmes**

## **Efficient Lighting Initiative (ELI)**

Dr. Uwe Weber, ELI Managing Director

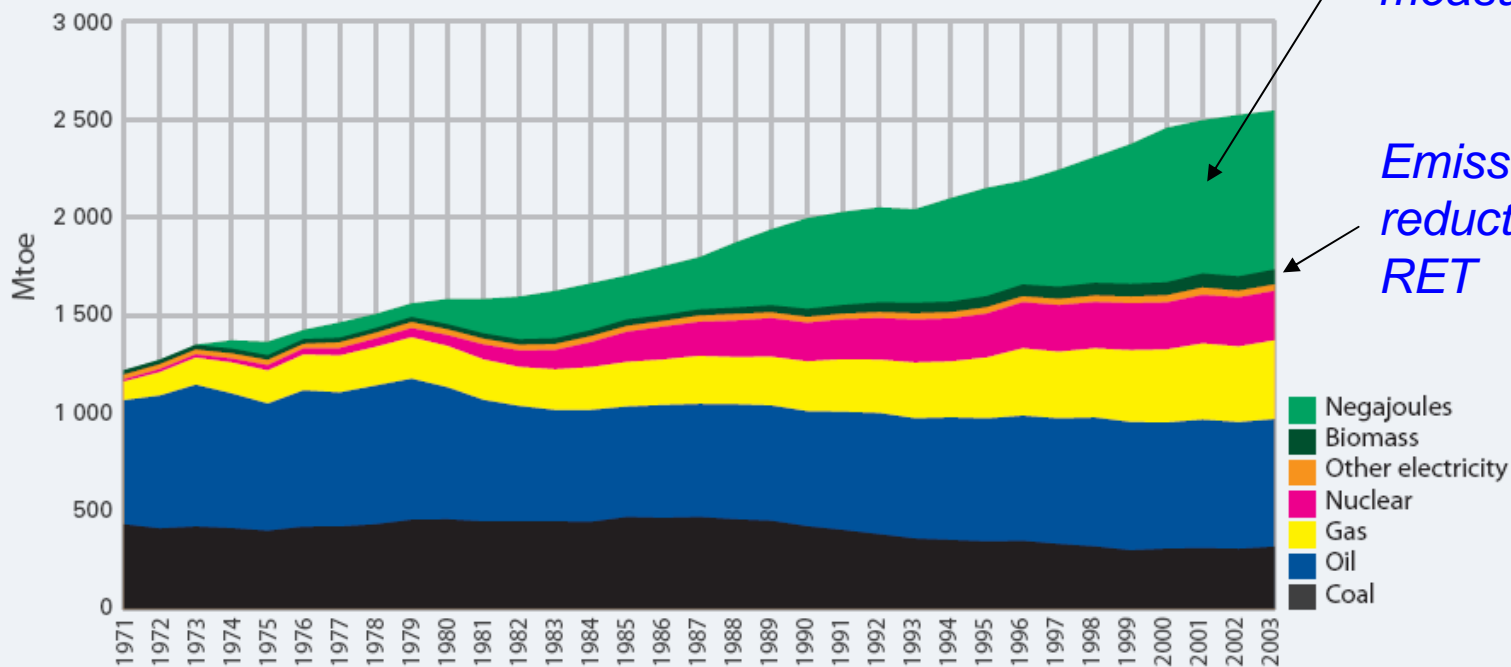
ELI Quality Certification Institute  
China Standard Certification Center

**Asia Clean Energy Forum, Manila, June 26<sup>th</sup>, 2007**

**A Commitment to Quality**

## The case for Energy Efficiency: EE measures taken e.g. in the EU during the last 30 years saved the multiple of CO<sub>2</sub> emissions and non-renewable resources compared to all RE developments

Development of primary energy demand and of "negajoules" (EU-25)



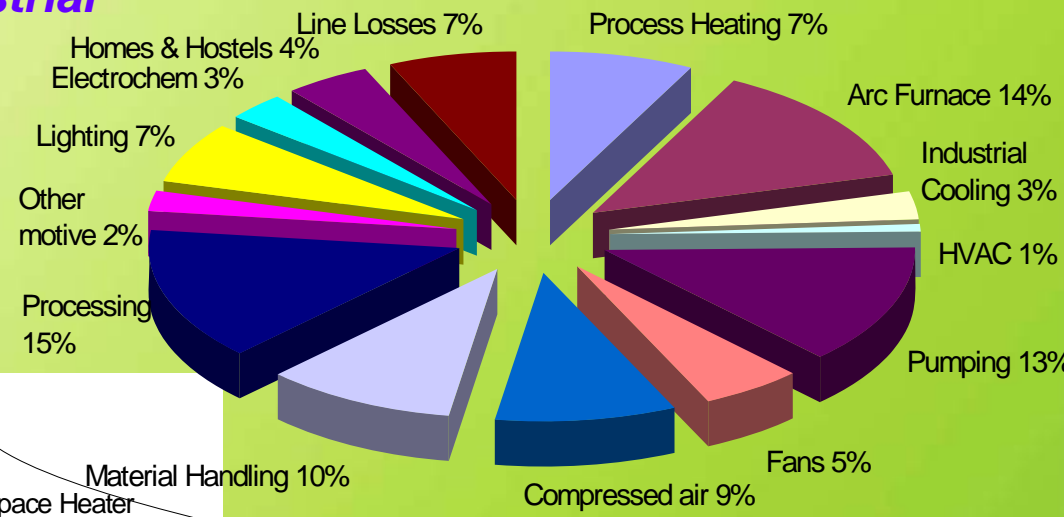
*CO<sub>2</sub> Emissions avoided by EE measures*

*Emission reduction by RET*

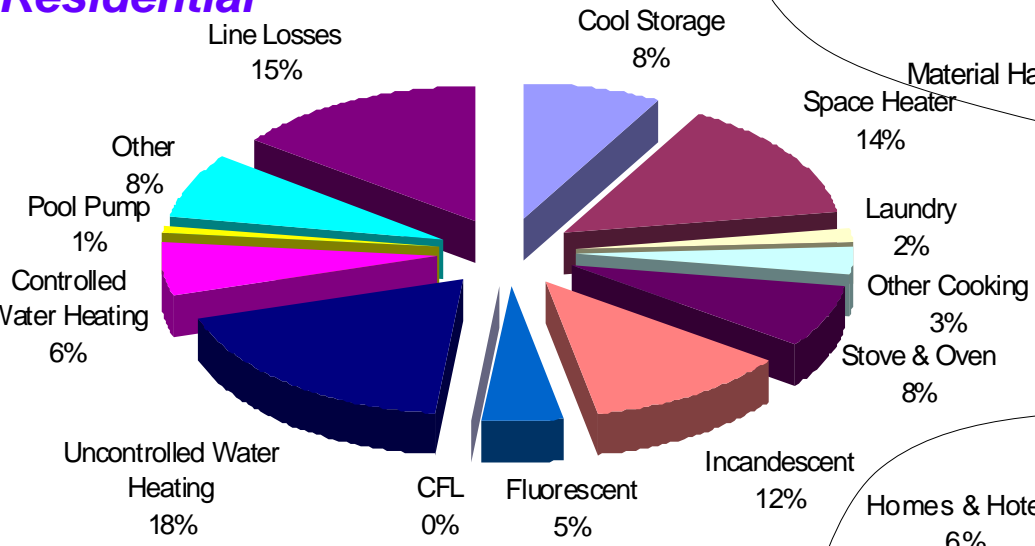
"Negajoules": Energy savings calculated on the basis of 1971 energy intensity.

Source: Enerdata (calculations based on Eurostat data).

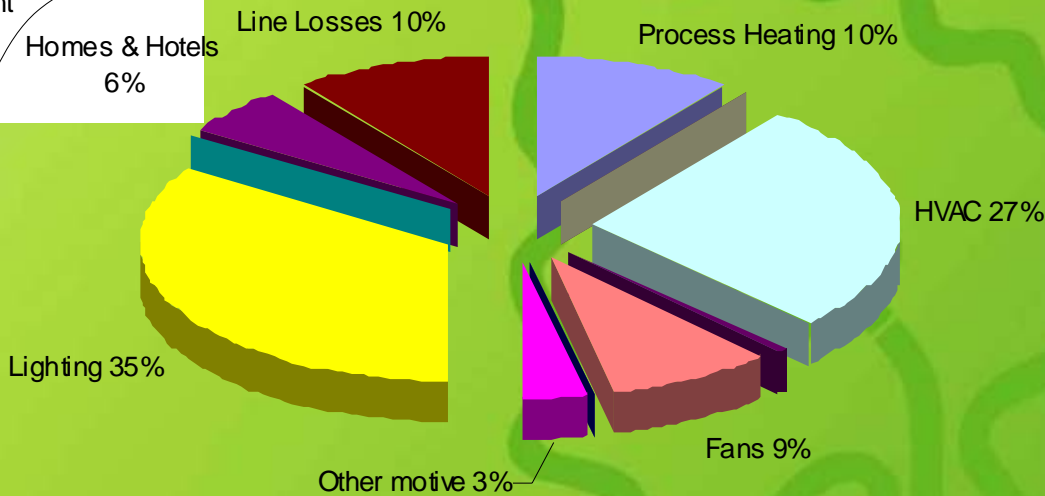
# Industrial

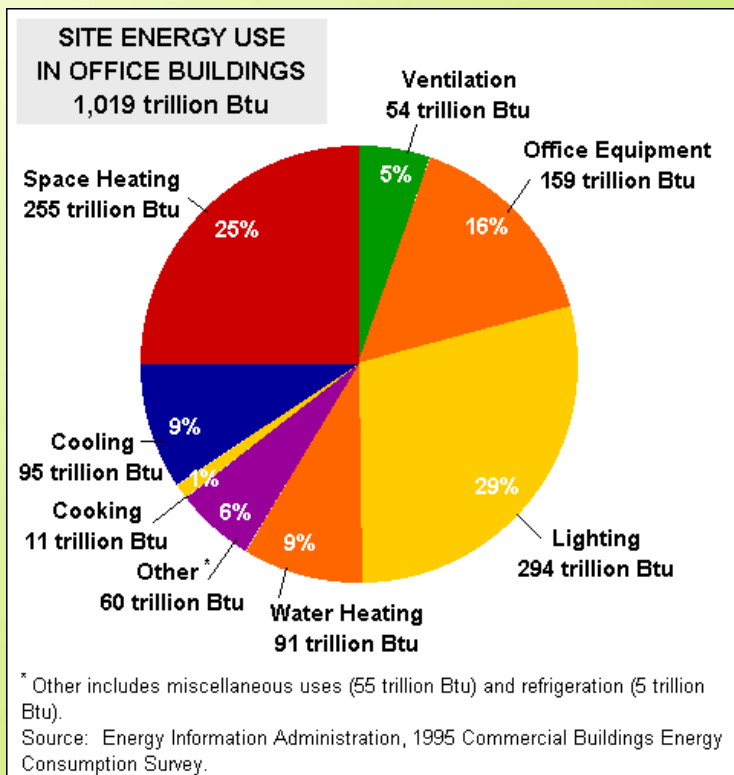


# Residential



# Commercial





**20 to 40 per cent of electric energy in buildings is consumed in lighting**

**About 30 to 50 per cent of the operating costs in buildings are associated with lighting**

**Cost of ownership is no priority for real estate investors, hence often low-priced not EE (lighting) systems are installed.**



## **Conclusion:**

*The lighting sector presents excellent opportunities to materialise high EE gains with reasonable investment*

*However, changes in lighting installations, in particular incandescent – CFL exchange are reversible. EE gains will only be sustained if end-users accept the new technologies. This becomes increasingly important in the framework of Program-CDM and Carbon-Offset programs, which rely on measurable, documented sustained emission reductions.*

*Therefore, EE technology performance against end-users requirements = Quality Specification, - Control and - Assurance are extremely important for successful DSM, Carbon-offset and Energy Efficiency projects*

## Examples of market stimulation and DSM measures with Incandescent-CFL exchange programmes:

Country	Comments	Quantity	ELI Spec?
India	Pay on the bill; qualified models	$\leq 1$ million	✓
Vietnam	Dec. 2004: USD 1.08/lamp Nov: 2005: USD 0.98/lamp	1 million	✓
South Africa	Several procurements for crisis peak reduction	7 million	✓
Uganda	In development for crisis peak reduction	800,000	✓
Indonesia	Considering large-scale give-away to reduce losses from subsidized customers	100 million	✓
Rwanda	Electrogaz purchased CFL with World Bank support, ELI certified suppliers invited	$\geq 100.000$	✓
Brazil	AES SUL intends to co-operate with ELI for their annual CFL purchase	$\leq 50.000$	✓

**The ELI Quality Certification Institute** is the successor of the former GEF/IFC ELI Programme which operated from 2000-2003 in:

Argentina, Czech Republic, Hungary, Latvia, Peru, *Philippines* and South Africa.

The Institute is as a non-profit organization, hosted from China Standard Certification Center (CSC) and supported from IFC.

To support and promote efficient lighting solutions in developing countries the ELI Quality Certification Institute operates a global certification and labelling program for energy-efficient lighting products adapted to the needs and resources of its stakeholders.



**The published ELI Specifications** identify the top performing 25% of products on the markets and comprise of:

- **Technical Specification for Double-Capped Fluorescent Lamps**
- **ELI Technical Specification for Ballasts for Double-Capped Fluorescent Lamps**
- **ELI Voluntary Technical Specification for Self-Ballasted Compact Fluorescent Lamps (CFLs)**

Current work items include: LEDs, Indoor Luminaires, Guideline for CFL/DCFL disposal

**ELI Specifications refer - wherever possible - to international recognized test procedures, i.e. IEC Standards and request in addition to lighting and EE performance all applicable safety requirements.**

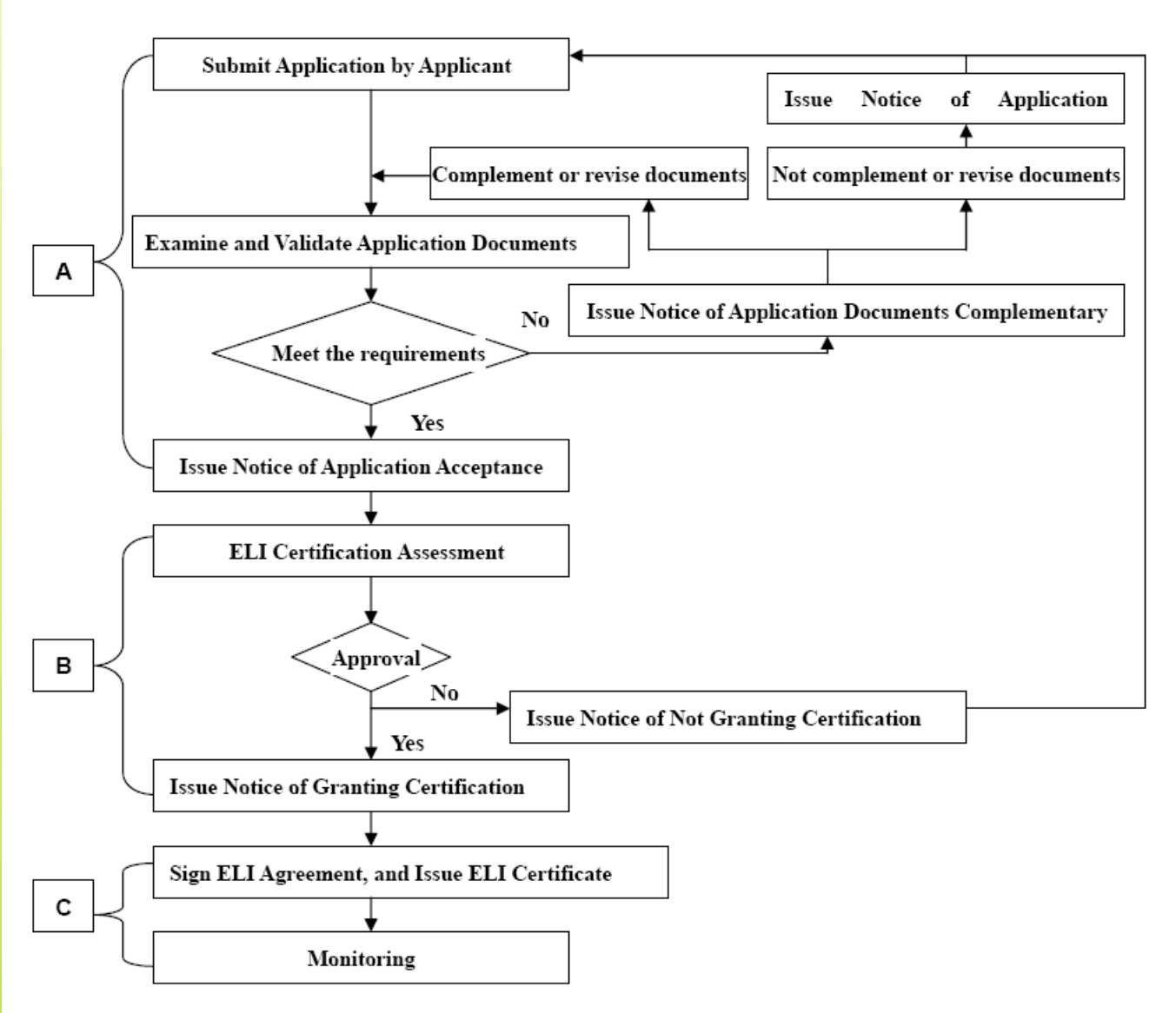


The ELI Quality Certification Institute established a comprehensive *Testing-Network* of about 50 laboratories accredited against ISO 17025, which guarantees convenient, competent, and independent testing against ELI specifications

The participating laboratories can be found and contacted via ELI's website.



# ELI certification process operates within CSC, a Product Certification Body accredited against ISO Guide 65:



The ELI Quality Certification Institute is currently processing the certification of more than 100 efficient lighting products. This assures buyers they find certified products on the market.

Eli performance specification require a **One-Year No Questions Asked Warranty** for certified products:



**SUNSHINE**

Dimensions:  $\phi 12mm$ ,  $148mm$ ,  $\phi 28$

**A. TERMS AND CONDITIONS**

1. These terms and conditions govern this warranty card and the original invoice receipt issued by the authorized dealer for any return or claim. Otherwise, our right of Standard Warranty Service will be null and void.
2. The first year test cycle shall be made through the company or the authorized dealer who issued the original invoice receipt. The one and year warranty will be covered only by the Company's service center. All defective products are to be delivered at customer's own cost.
3. The Company reserves the right to investigate the Standard Warranty Service if any non-compliance of the claim is found.
4. Under the circumstances, the Company is liable for any loss, damage or installation done or consequential arising from using of the products of the Company.
5. The Company reserves the right to change and amend the terms and conditions of Standard Warranty Service without prior notice.
6. Standard Warranty Service is covered from date of the original invoice receipt.

**B. EXCEPTIONS**

Standard Warranty Service does not include:

1. Any damage due to improper use, natural damage, negligence, tampering, alteration, or other acts of third parties or modification without the consent of the Company.
2. Operating parameters or any other technical violation or act of tampering.

**SUNSHINE**      **Shin Sun Technology Ltd.**  
 Factory Center: Unit 5, 2/F, 70th Street, 1 Shin Sun Building,  
 Tuen Mun, New Territories, Hong Kong  
 Tel: 2721 1110  
 Website: www.sunshine-led.com

## **ELI engages in wider advocacy and promotion of efficient lighting together with its partners:**

- ELI actively seeks to develop PP partnerships in projects which contribute to the proliferation of efficient lighting solutions
- with International Energy Initiative – IEI, Brazil - ELI submitted joint project proposal on Energy Efficiency Policy Development
- ELI actively participates and supports regional harmonization of CFL performance specifications in the Asia Pacific, thus responding to the WTO recommendation on equivalency for voluntary labelling schemes
- ELI proposes to start with its existing performance specifications, established test network and routine as well as its trusted compliance regime for the high performance specifications (HEPS) and last but not least its established logo for compliant products



**In this context the advantages of using ELI's specifications and certification system are:**

- **ELI's unique 7 –year programme experience;**
- **ELI's voluntary certification and labelling programme complies with essential WTO recommendations for voluntary labelling schemes: [Transparency and Equal Access](#). The ELI system is fully transparent and documented online, enabling easy access to information for interested parties and fostering trust.**
- **Established communication with stakeholders within a community of practice, government regulators, bulk purchasing programs, ESCOs, manufacturers and others;**
- **World-wide network of standardization and certification bodies via its organizational relationship to China National Institute of Standardization and the China Standard Certification Center**

## **Contact:**

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Quality Certification Institute

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# *A Commitment to Lighting Quality and Efficiency*

[www.efficientlighting.net](http://www.efficientlighting.net)

A large, faint, light-green graphic in the bottom right corner of the slide. It consists of a stylized electrical plug with two prongs, positioned above a large, wavy-edged leaf shape that resembles a maple leaf.

**A Commitment to Quality**