CFL STANDARDS & LABELING EXPERIENCE OF SRI LANKA

G B Wimalaratne
Deputy General Manager (Projects)
NERD Centre

CFL Program in Sri Lanka

1994/1995 - Pilot Project

1995/1996 -CEB purchased 100,000 CFLs and sold at discounted price

1997/1999 -Duty waiver for import of CFLs. Interest free loan from CEB

2000/2002 - Interest free loan continued. Prepared EE rating standard for CFLs

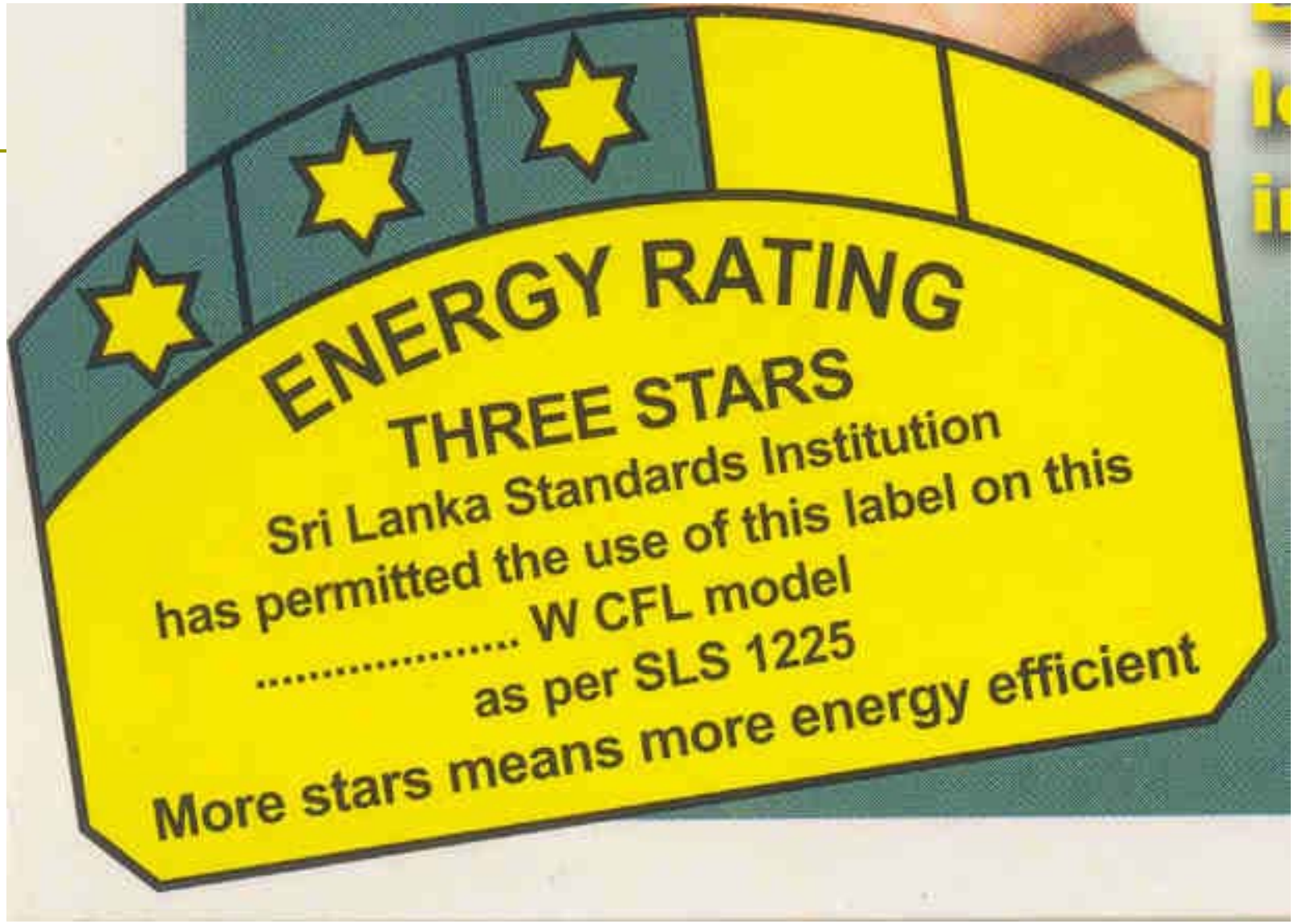
2003 - Launched EE label for CFL E labeling program commenced

2004 - Set **3 stars** as minimum EE rating, qualifying for CEB loan scheme

Implementation of EE Labeling Program for CFLs

Key Participating Agencies

- SLSI
- CEB (DSM Branch)
- NERD Centre
- ECF (SEA)


ENERGY RATING
THREE STARS
Sri Lanka Standards Institution
has permitted the use of this label on this
..... W CFL model
as per SLS 1225
More stars means more energy efficient

Salient Features of EE Rating Standard

Standard - SLS 1225 : 2002

Energy Efficiency → **Efficacy**

Performance → **Total Luminous flux**
Rated life
Power Consumption
Power Factor

Marking → **Information to Customer**
Rated voltage & wattage
Total lumens ,rated life
Make & model

Requirements of SLS 1225

Initial wattage ≤ 115% of rated wattage

Rated average life – 8000 hrs (minimum)

Power factor ≥0.50

Initial luminous flux > 90% of rated value

Marking

Rated voltage
Rated wattage
Model No.
Total luminous flux

} on the lamp

Rated average life
Brand name

} on the lamp or on the container

Performance Grading

PG = 0.8 X Efficacy + 0.2 x pfx100

$$\text{Efficacy} = \frac{\text{Measured Average Lumens}}{\text{Measured Average Wattage of lamp}}$$

Determination of Star Rating

PG Value	No. of Stars
PV > 70	05 *****
65 < PG ≤ 70	04 ****
60 < PG ≤ 65	03 ***
55 < PG ≤ 60	02 **
50 < PG ≤ 55	01 *

Amendments to SLS 1225 : 2002

Amendment No. 1 – 2004

- Introduced lumen maintenance test
- Switching cycle for life test is defined
- Efficacy calculation revised

$$\text{Efficacy} = \frac{\text{Measured average luminous flax}}{\text{Rated wattage of lamp} - 0.4\text{w}}$$

Amendments No. 3 – 2007

Rated average life reduced from 8000 hrs. to 6000 hrs.

Amendments No.4 – 2008

Performance grading formula revised

PG = E x A + Pf x100xB + CCC

A = 0.9 B= 0.1

CCC = Colour Correction Coefficient

<3300K = 0

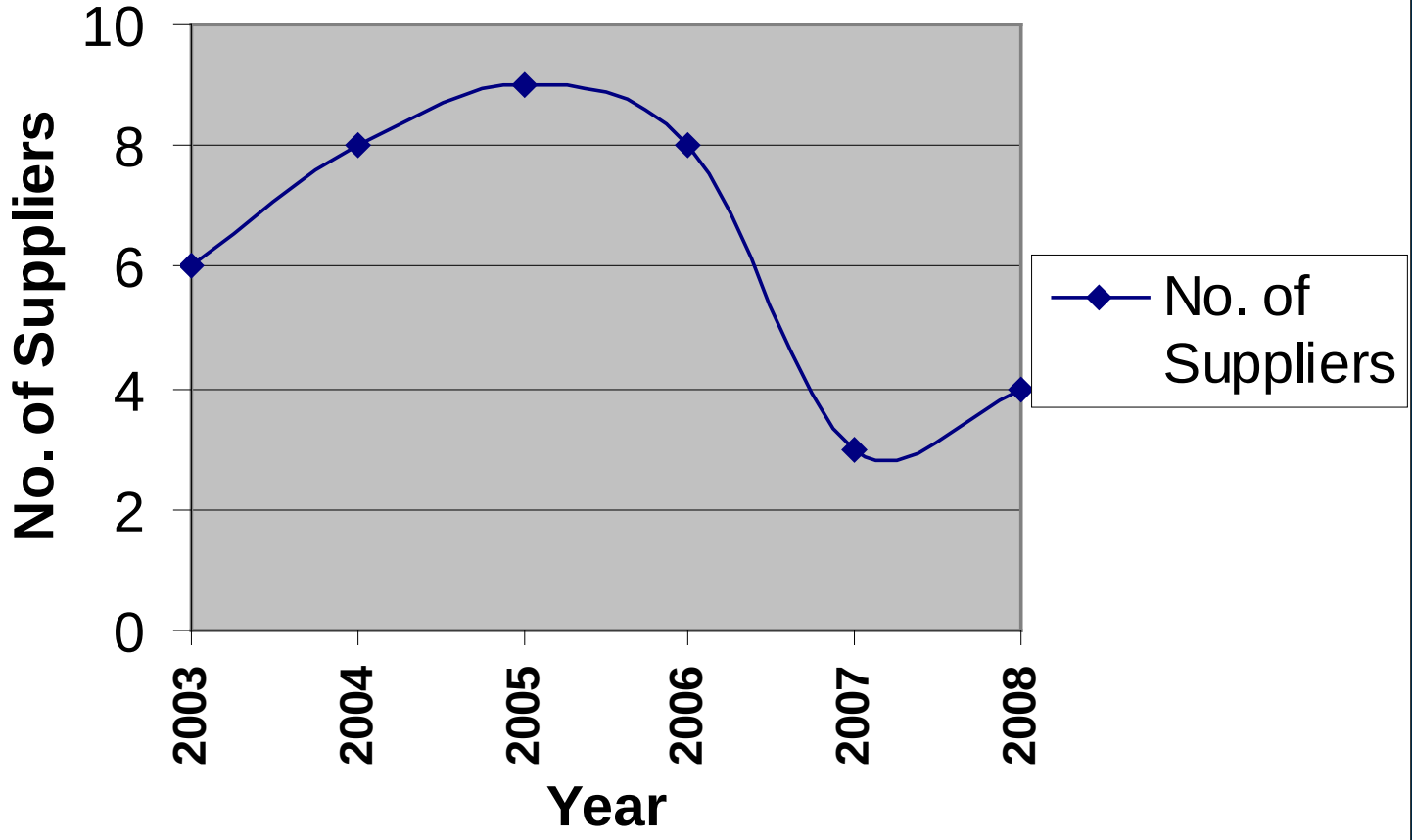
3300 – 5000 K = 2

>5000 K = 3

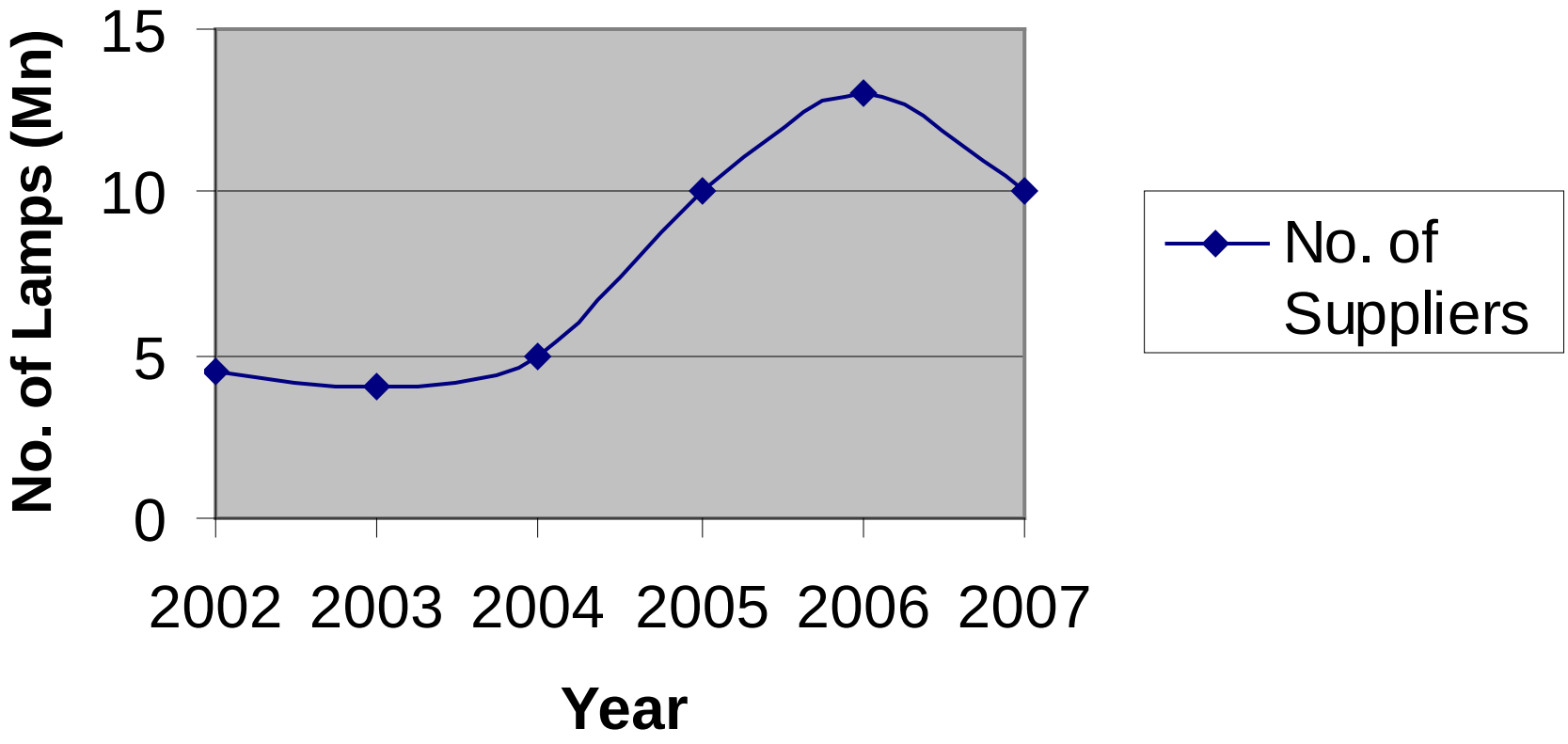
Star Rating

PG Value	No. of Stars
PV > 70	05 *****
65 < PG ≤ 70	04 ****
58 < PG ≤ 65	03 ***
54 < PG ≤ 58	02 **

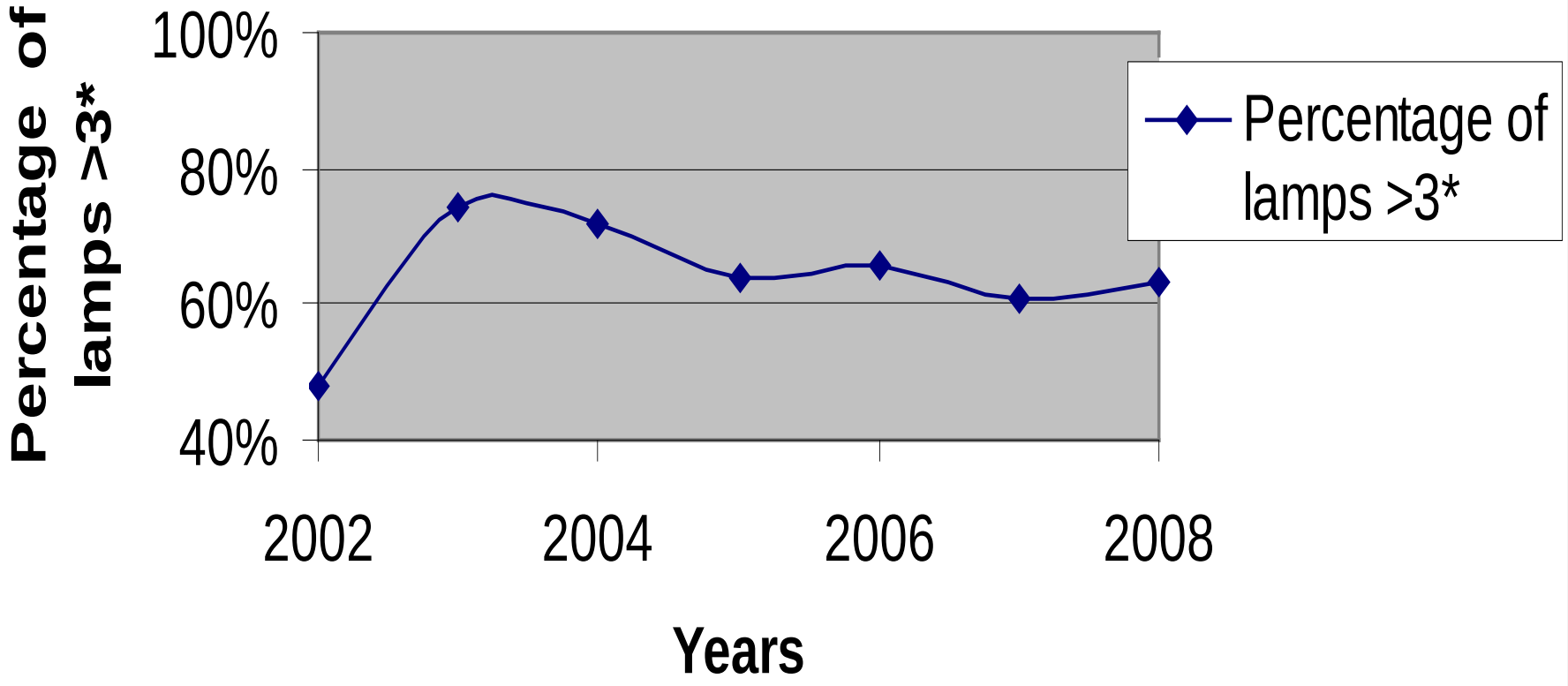
Suppliers Entered to Energy Labeling Program



Import Quantities of CFL



Energy Efficiency Improvement (CFL)



Our Experience

1. EL scheme was implemented a as voluntary program
2. Interest of suppliers joining labeling scheme was low
3. CEB Loan Scheme (CFL) encourage the suppliers
4. Reputed brands got lower star rating compared to newly introduced brands

Contd..

Our Experience Contd...

5. **Public awareness on EL Scheme was poor**
6. **Consumers are more concern about life than energy efficiency**
7. **Rated life was not tested. Many lamps failed prematurely**
8. **Many consumers were confused about star rating & quality**

Our Experience Contd...

9. **When CEB Loan Scheme was withdrawn, no of suppliers joining declined**
10. **Voluntary scheme did not bring expected results**
11. **SEA is taking steps to make CFL labeling program mandatory**
12. **CFL was brought under compulsory IIS**

THANK YOU