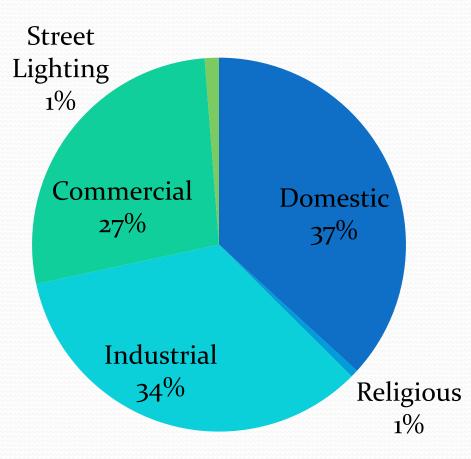
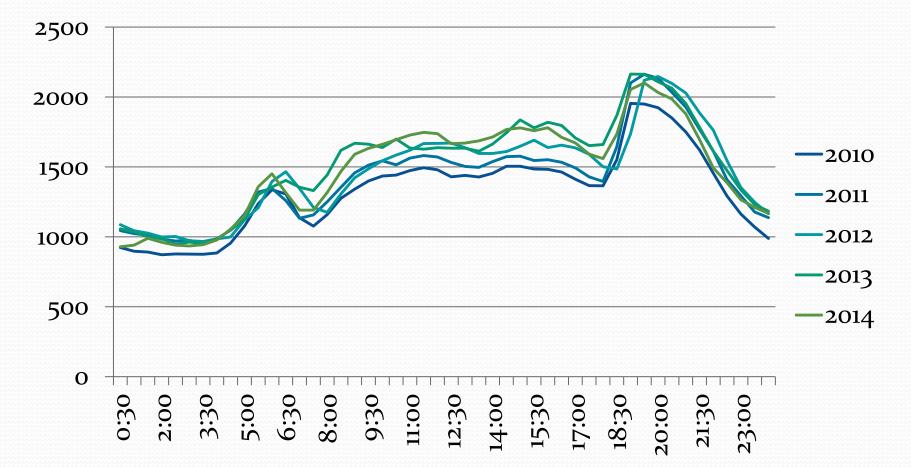
# Interventions in Energy Efficient Lighting in Sri Lanka

P.S. Maldeniya (Engineer, Professional) Sri Lanka Sustainable Energy Authority

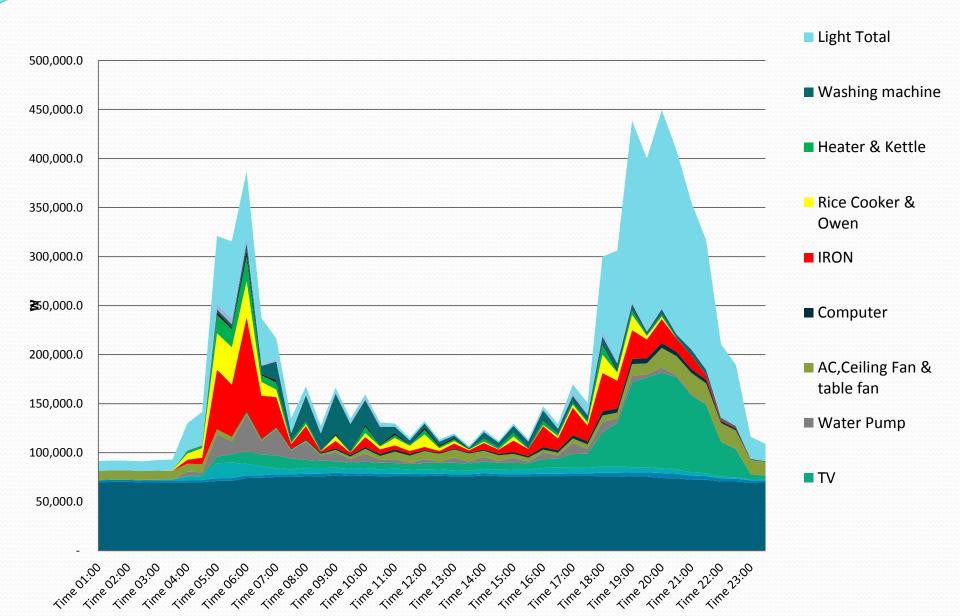
#### **Electricity end use**



### Daily load curve



#### **Domestic energy usage**



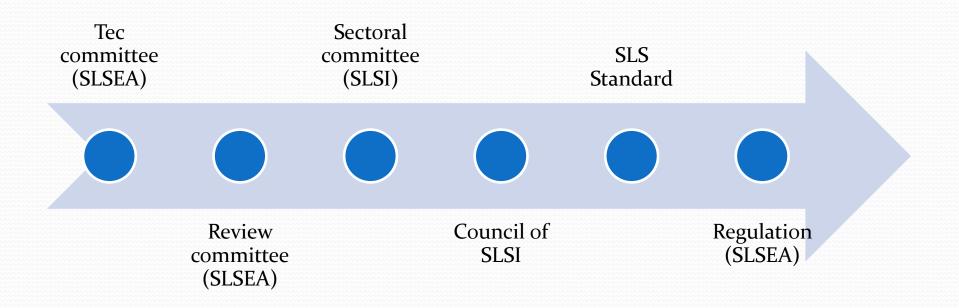
#### Promotion of efficient lighting and

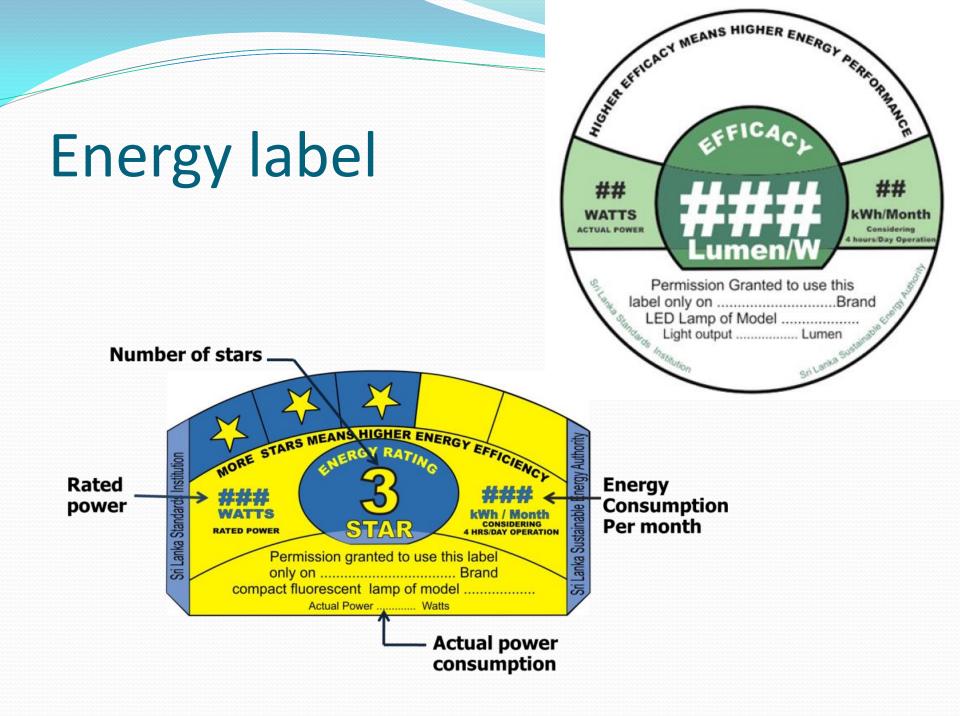
#### barriers

- Cost of lights
- Lack of Awareness- media campaigns, exhibitions, distribution of CFL/LEDs during pilot surveys, awareness
- Low quality (inefficient) products-labelling regulation
- Test facilities (Lighting research center)
- Mercury addition



## Energy labelling process





#### Present status of standards and

### regulations

Product	Standard	Regulation	Scope
Compact Fluorescent Lamps	SLS 1225:2002	1611/10 of 2009	Self ballasted lamps operating on main supply of 230 V a.c, 50 Hz nominal
Ballasts	SLS 1200:2012	2016 (due)	magnetic ballasts used with 18/20 W and 36/40 W tubular fluorescent lamps operated on a.c. supplies at 50 Hz, 230 V nominal
Linear Fluorescent Lamps	SLS 1625: 2013	2016 (due)	Fluorescent Lamps of 18 W to 40 W with pre-heated cathode, operating with or without starter on mains supply of 230 V, a.c. 50 Hz nominal
LED	SLS XXXX:2016	2016 (due)	self ballasted integral type LED lamps for general lighting services , rated power up to 60 W having screw and

### **Test facilities**



- National Engineering Research & Development Centre (NERDC) (LED,CFL, LFL, Ballast)
- Regional Centre for Lighting (RCL) (LED,CFL,LFL)
- Sri Lanka Standards Institution (SLSI)
  (Ballast,LED,CFL,LED)

### achievements

#### **Domestic Electricity**

#### consumers

Houses with only

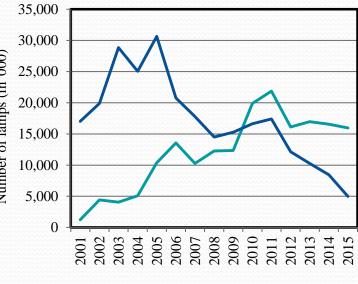
incandescent

year	number	Import statistics of
2005	3,338,859	incandescent lam
2010	4,363,324	35,000
2011	4,578,596	
2012	4,810,595	. <u>E</u> Sc. 20,000
2013	5,024,077	년 15,000 년 10,000
2014	5,205,453	5,000 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
year	2007/0 2010	2001 2003 2005 2005 2005 2005 2006
	8	Year

21%

33%

of CFL and nps



-CFLs

#### Lessons learnt and future

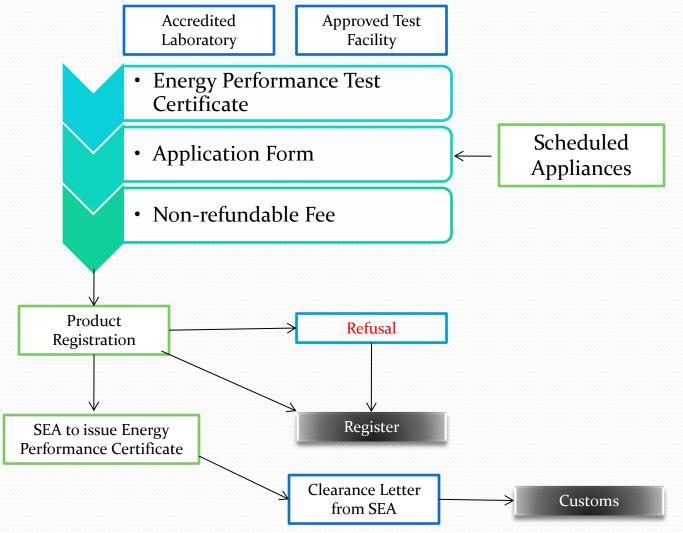
### directions

- Energy labelling is a programme which require many expensive inputs
  - Programme establishment
  - Sustaining same, with monitoring and vigilance
- Technology development
  - Keeping pace with new products difficult and costly
  - Standards need frequent updating, waste of effort

# **Future Directions**

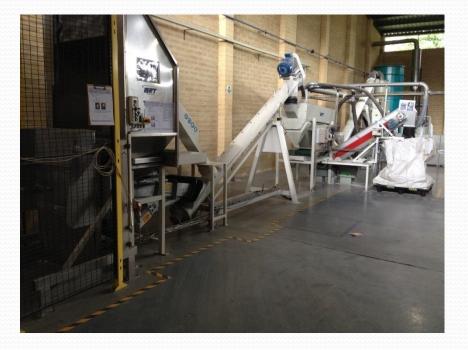
Initiate	Voluntary	Mandatory	Prohibitions	Fiscal	Review
Establish MEPS	Issue Labels to products which meet MEPS	Make it compulsory to paste labels	Products which cannot meet MEPS prohibited	Efficient products taxed less	MEPS to be refined every 2 years
	Other products remain with no labels			Inefficient products taxed more	
2015	2016	2017	2018	2019	Every 2 years





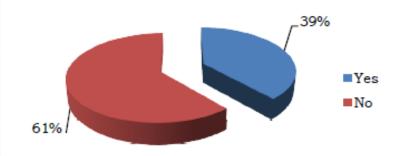
## Addressing the harmful effects

#### **CFL recycling plant**



#### Awareness on harmful effects of CFL disposal

- Recycling plants in operation
- Waste collection not very effective



Thank you