Interventions in Energy Efficient Lighting in Sri Lanka

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Electricity end use

- Domestic: 37%
- Industrial: 34%
- Commercial: 27%
- Street Lighting: 1%
- Religious: 1%
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

- Tec committee (SLSEA)
- Sectoral committee (SLSI)
- SLS Standard
- Review committee (SLSEA)
- Council of SLSI
- Regulation (SLSEA)
Energy label

- Number of stars
- Rated power
- Actual power consumption
- Energy Consumption Per month

Permision granted to use this label on brand compact fluorescent lamp of model. Actual Power Watts

Higher efficacy means higher energy performance

Lumen/W
<table>
<thead>
<tr>
<th>Product</th>
<th>Standard</th>
<th>Regulation</th>
<th>Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compact Fluorescent Lamps</td>
<td>SLS 1225:2002</td>
<td>1611/10 of 2009</td>
<td>Self ballasted lamps operating on main supply of 230 V a.c, 50 Hz nominal</td>
</tr>
<tr>
<td>Ballasts</td>
<td>SLS 1200:2012</td>
<td>2016 (due)</td>
<td>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</td>
</tr>
<tr>
<td>Linear Fluorescent Lamps</td>
<td>SLS 1625:2013</td>
<td>2016 (due)</td>
<td>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</td>
</tr>
<tr>
<td>LED</td>
<td>SLS XXXX:2016</td>
<td>2016 (due)</td>
<td>self ballasted integral type LED lamps for general lighting services, rated power up to 60 W, having screw and bayonet lamp caps</td>
</tr>
</tbody>
</table>
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)
Domestic Electricity consumers

<table>
<thead>
<tr>
<th>year</th>
<th>number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>3,338,859</td>
</tr>
<tr>
<td>2010</td>
<td>4,363,324</td>
</tr>
<tr>
<td>2011</td>
<td>4,578,596</td>
</tr>
<tr>
<td>2012</td>
<td>4,810,595</td>
</tr>
<tr>
<td>2013</td>
<td>5,024,077</td>
</tr>
<tr>
<td>2014</td>
<td>5,205,453</td>
</tr>
</tbody>
</table>

Import statistics of CFL and incandescent lamps

<table>
<thead>
<tr>
<th>Year</th>
<th>2007/08</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Houses with only incandescent</td>
<td>33%</td>
<td>21%</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Initiate</th>
<th>Voluntary</th>
<th>Mandatory</th>
<th>Prohibitions</th>
<th>Fiscal</th>
<th>Review</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establish MEPS</td>
<td>Issue Labels to products which meet MEPS</td>
<td>Make it compulsory to paste labels</td>
<td>Products which cannot meet MEPS prohibited</td>
<td>Efficient products taxed less</td>
<td>MEPS to be refined every 2 years</td>
</tr>
<tr>
<td></td>
<td>Other products remain with no labels</td>
<td></td>
<td></td>
<td>Inefficient products taxed more</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>2016</td>
<td>2017</td>
<td>2018</td>
<td>2019</td>
<td>Every 2 years</td>
</tr>
</tbody>
</table>
Expedited Labelling Process

- Accredited Laboratory
- Approved Test Facility
- Energy Performance Test Certificate
- Application Form
- Non-refundable Fee

Scheduled Appliances

Product Registration

SEA to issue Energy Performance Certificate

Refusal

Register

Clearance Letter from SEA

Customs
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