MALAYSIA

Country Report on Energy Code and ASEAN Energy Award
OUTLINE

01
INTRODUCTION
• New Ministry structure in Malaysia 2018

Ahmad Firdaus

02
BUILDING ENERGY CODE
• Malaysia Standard
• Energy Efficiency & Conservation Act (EECA)
• Building Energy Label for Government Buildings
• Green building rating tools

03
ENERGY AWARDS
• Malaysia National Energy Awards (NEA) 2018
• Asean Energy Awards (AEA) 2018
• ZEB Family Concept

04
THANK YOU
After the general election to 14 (PRU-14), Ministry has been restructured and formed the Ministry of Energy, Science, Technology, Environment & Climate Change (MESTECC).
BUILDING ENERGY CODE

**MS 1525: CODE OF PRACTICE ON EE AND USE OF RE FOR NON-RESIDENTIAL BUILDINGS**
- This code of practice gives guidance on the effective use of energy including the application of renewable energy in new and existing non-residential buildings.

**MS 2680 CODE OF PRACTICE ON EE AND USE OF RE FOR RESIDENTIAL BUILDINGS - 2017**
- To guide on the design, selection of materials and electrical appliances and efficient use of energy including the application of renewable energy in new and existing residential buildings.
ENERGY EFFICIENCY & CONSERVATION ACT (EECA)

01 Minimum Energy Performance Standards (MEPS)
- Domestic Appliances
- Industrial Equipments

02 Efficient Management of Electrical Energy Regulation (EMEER)
- Energy Manager
- Energy Service Company

03 Building Sector
- Building Codes
- Building Labelling

04 Thermal Energy
- Co-Generation
- Gas District Cooling
- Solar Thermal
NATIONAL BUILDING ENERGY LABELLING FOR GOVERNMENT BUILDINGS

Phase 1
- **100**
  - Government office buildings
  - NFA > 8,000 m²; and or
  - > 1million kWh/year

Phase 2
- **1,900**
  - Government Buildings:
    - Office
    - Hospitals
    - Universities
    - Polytechnics
    - Schools

Phase 3
- **3,000+**
  - Government Buildings:
    - Office
    - Hospitals
    - Universities
    - Polytechnics
    - Schools

<table>
<thead>
<tr>
<th>STAR</th>
<th>*BEI Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-Star</td>
<td>BEI ≤ 100</td>
</tr>
<tr>
<td>4-Star</td>
<td>100 &lt; BEI ≤ 130</td>
</tr>
<tr>
<td>3-Star</td>
<td>130 &lt; BEI ≤ 160</td>
</tr>
<tr>
<td>2-Star</td>
<td>160 &lt; BEI ≤ 250</td>
</tr>
<tr>
<td>1-Star</td>
<td>BEI &gt; 250</td>
</tr>
</tbody>
</table>

*BEI range for office building

Building category:
- Office
- Hospital
- University
- School & etc.

Star range:
- 1 Star: Less efficient
- 5 Star: Most efficient

Building Energy Performance Unit:
kWh/m²/year

20 Oct 2018
GREEN BUILDING RATING TOOLS

- Voluntary Basis
NATIONAL ENERGY AWARDS 2018

EEB & GB (7)

1. EE Designed Building
2. Small & Medium Industry
3. Small & Medium Building
4. Large Industry
5. Large Building
6. Tropical Building
7. Retrofitted Building
8. Green Building

1. EE Designed Building (1)
2. Small & Medium Industry (2)
3. Small & Medium Building (3)
4. Large Industry (13)
5. Large Building (13)
6. Tropical Building (0)
7. Retrofitted Building (4)
8. Green Building (4)

Applications: 40

19 Oct 2018
# ASEAN ENERGY AWARDS 2018

## Energy Management

<table>
<thead>
<tr>
<th>Category</th>
<th>National Energy Awards</th>
<th>ASEAN Energy Awards</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Small and Medium</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Buildings</td>
<td>i. Cofreth (M) Sdn Bhd HQ</td>
<td>1st Runner-Up</td>
</tr>
<tr>
<td></td>
<td>ii. KPJ Kluang Utama Specialist Hospital</td>
<td></td>
</tr>
<tr>
<td>2. Industries</td>
<td>i. Dutch Lady Milk Industries Sdn Bhd</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ii. Top Glove Sdn Bhd</td>
<td>2nd Runner-Up</td>
</tr>
<tr>
<td><strong>Large</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Buildings</td>
<td>i. Public Works Department HQ</td>
<td>Winner</td>
</tr>
<tr>
<td></td>
<td>ii. Kota Kinabalu International Airport</td>
<td></td>
</tr>
<tr>
<td>2. Industries</td>
<td>i. IOI Edible Oils Sdn Bhd</td>
<td>2nd Runner-Up</td>
</tr>
<tr>
<td></td>
<td>ii. BP Petronas Acetyls Sdn Bhd</td>
<td></td>
</tr>
<tr>
<td><strong>SPECIAL SUBMISSION</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>GREEN BUILDING &amp; ENERGY EFFICIENT BUILDING</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>GREEN BUILDING</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Small and Medium</td>
<td>i. PKNS HQ</td>
<td>Winner</td>
</tr>
<tr>
<td></td>
<td>ii. Amanjaya Specialist Centre</td>
<td>2nd Runner-Up</td>
</tr>
<tr>
<td>2. Large</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>NEW AND EXISTING BUILDING</strong></td>
<td></td>
<td>2nd Runner-Up</td>
</tr>
<tr>
<td></td>
<td>i. PKNS HQ</td>
<td></td>
</tr>
<tr>
<td><strong>TROPICAL BUILDING</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>RETROFITTED BUILDING</strong></td>
<td>i. Pejabat Perdana Menteri</td>
<td>1st Runner-Up</td>
</tr>
<tr>
<td></td>
<td>ii. Putra Specialist Hospital Sdn Bhd</td>
<td></td>
</tr>
<tr>
<td><strong>SPECIAL SUBMISSION</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| JUMLAH                    | 13                                                                                   | 7                             |
• During IGEM 2018 in Kuala Lumpur recently, Malaysia had signed a Memorandum of Understanding (MoU) with Japan which between Sustainable Energy Development Authority (SEDA) and The Japanese Business Alliance for Smart Energy Worldwide (JASE).
THANK YOU