



KAWALSELIA KESELAMATAN KELENGKAPAN ELEKTRIK DI MALAYSIA

oleh

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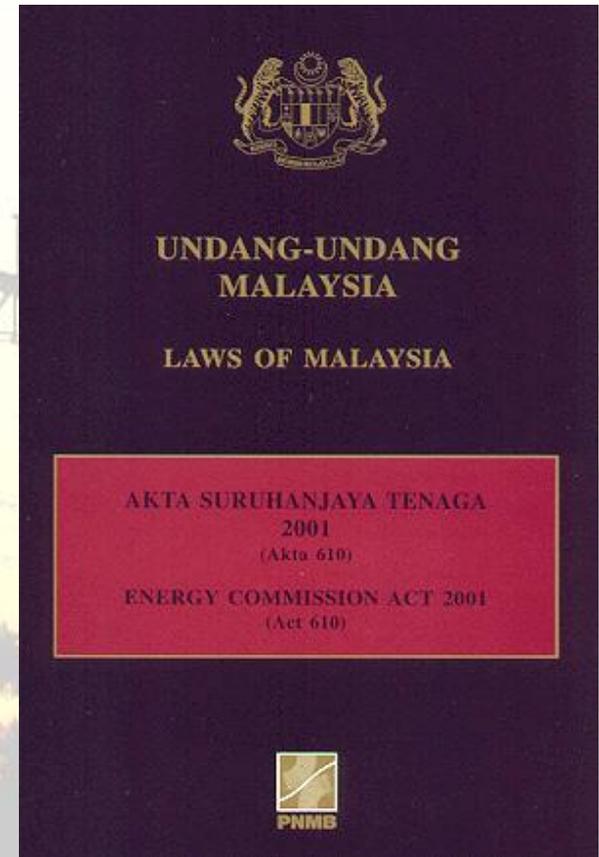
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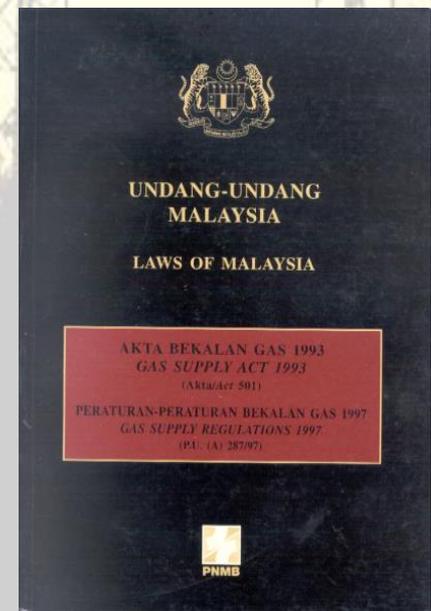
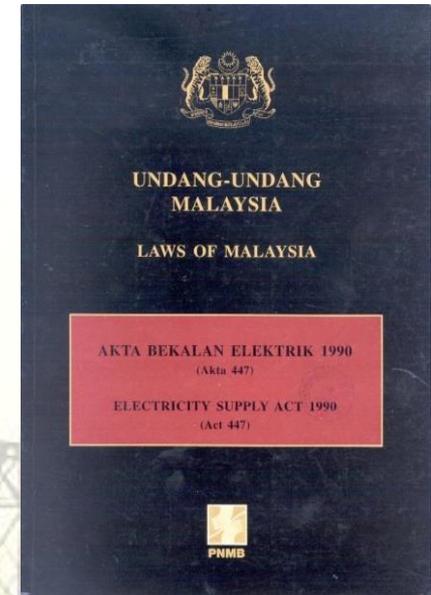
ENERGY COMMISSION

- Energy Commission / Suruhanjaya Tenaga (ST), a statutory body established under the Energy Commission Act 2001, is responsible for regulating the energy sector, specifically the electricity supply and piped gas supply industries in Peninsular Malaysia and Sabah
- Fully operational on January 1, 2002, the EC took over the role of the Department of Electricity and Gas Supply, which was dissolved on the same date



ENERGY SUPPLY LAWS

- Electricity Supply Act 1990 [Act 447] as amended in 2015
 - **Electricity Regulations 1994 as amended in 2013 & 2014**
 - Licensee Supply Regulations 1990
 - Electricity Supply (Compounding of Offences) Regulations 2001
 - Efficient Management of Electrical Energy Regulations 2008
- Gas Supply Act 1993
 - Gas Supply Regulations 1997
 - Gas Supply (Compoundable Offences) Order 2006





COMPLIANCE OF LEGISLATION

1

Electricity Supply Act 1990

Sec 4(I) - to prescribe the minimum standards & specifications & appraise & approve, where necessary, any electrical installation or equipment

2

Electricity Regulations 1994

(Reg. 97 - Reg. 109)

Reg 97 (1) - Certificate of Approval (CoA) is required to manufacture, import, display, sell or advertise for electrical equipment

Reg 97 (C) - Certificate of Registration (CoR) is required to manufacture, import, display, sell or advertise for electrical equipment

Reg 98 - Marking or labelling of approved equipment

Reg 101A - Efficient use of electricity equipment

3

Customs (Prohibition of Imports) Order 2012

Schedule IV, Part II - List of electrical goods that required EC permit

Roles of Energy Commission (EC) - as a Regulator of EEE

Safety Regulation

To protect the public from dangers arising from the generation, transmission, distribution and supply and use of electricity and the supply and use of piped gas.



TESTING

MARKING =
LABELLING

RECOGNISED
LABORATORY

STANDARDS

IEC / MS IEC /
BS / BS EN

TEST REPORT

RECOGNISED TEST REPORT



- 01** Sirim / QAV / Phychrometric (DAIKIN) / accredited lab under Laboratory Accreditation Scheme of Malaysia (SAMM) by DSM
- 02** Lab under IECEE CB Scheme which CB test report need to be accompanied by CB test certificate

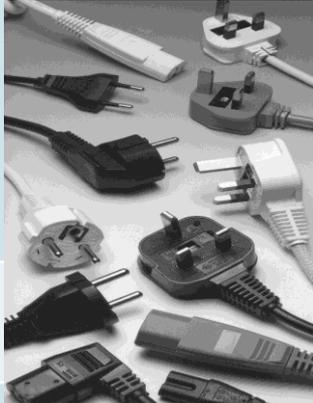
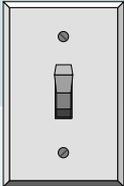
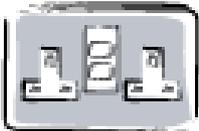
- 03** Lab which are accredited by the accreditation body that have signed the APLAC MRA or ILAC MRA
- 04** Lab listed as Designated Testing Laboratory (DTL) under ASEAN EEE MRA

LIST OF REGULATED EQUIPMENT



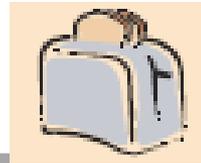
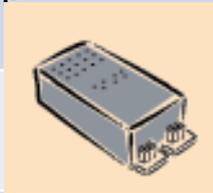
34 categories item
199 sub categories

List of 34 Categories of Electrical Appliances Requiring CoA & Labeling

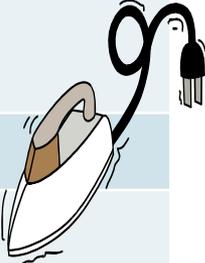
| No | Category Equipment | National Standard |
|----|--|---|
| 1. | Plug Top /Plug  | MS 589-1, 1577, 1578 MS IEC 60320-1,-2-2 MS 589-3, 1144 MS IEC 60998-1,-2-1,-2-2,-2-3,-2-4, MS 1873, -22 |
| 2. | Switch & Dimmer  | MS IEC 60669-1,-2-1,-2-2,-2-3 MS IEC 61558-1,-2-8 |
| 3. | Socket Outlet  | MS 589-2, 1577, 1579, 1141 MS IEC 61558-1, -2-5 |
| 4. | Lampholder / StarterHolder  | MS IEC 60400 |
| 5. | Ceiling Rose  | MS 770, MS IEC 60238 |
| 6. | Bayonet Cap & Multiways Adaptor  | MS 769, IEC 61184 |
| 7. | Lamp fitting   | MS IEC 60598-1,-2-1,-2-2 MS IEC 60155, 60968, 60969 MS IEC 61347-1,-2-13 MS IEC 60838-1,-2-2 MS IEC 62031,62776,62560 |

List of 34 Categories of Electrical Appliances Requiring CoA & Labeling

| No | Category Equipment | National Standard |
|----|--------------------------------------|--|
| 8. | Capacitors for fluorescent lamp | MS IEC 61048, 61049 |
| 9. | Ballasts / Control Gear | MS IEC 61347-1, -2-3, -2-8, MS141-2, MS IEC 60929, 61000 |
| 10 | Circuit breaker:- RCD, MCB, Fuse | MS IEC 61008-1,-2-1, -2-2 MS IEC 61009-1,-2-1, -2-2 MS IEC 60898-1,-2, MS IEC 60269-1,-2,-3 MS IEC 60947-1, -3 |
| 11 | Portable Luminaire Lamp | MS IEC 60598-1, -2-4, -2-8, -2-12 |
| 12 | Kettle including heating element | MS IEC 60335-2-9,-2-12,-2-13, -2-15,-2-36 MS 1597-2-21,24,35 |
| 13 | Kitchen Machine -Food mixer/blenders | MS IEC 60335-1, -2-14 |
| 14 | Toasters / Oven | MS IEC 60335-1, -2-6, -2-9, -2-25 |



List of 34 Categories of Electrical Appliances Requiring CoA & Labeling

| No | Category Equipment | National Standard |
|----|--|--|
| 15 | Rice Cooker  | MS IEC 60335-1, -2-15  |
| 16 | Refrigerator | MS IEC 60335-1, MS 1597-2-24 |
| 17 | Immersion Water Heater | MS IEC 60335-1, -2-73, -2-74 |
| 18 | Water Heater – Storage / Instantaneous | MS IEC 60335-1 MS 1597-2-35, -2-21 |
| 19 | Washing Machine  | MS IEC 60335-1, -2-4, -2-11, -2-43 MS 1597-2-7, -2-5 |
| 20 | Fan  | MS IEC 60335-1, -2-31, -2-65, -2-98 MS 1597-2-80, MS 1220 |
| 21 | Hand Operated – Hairdryer/Skin Care  | MS IEC 60335-1, -2-23  |
| 22 | Iron | MS IEC 60335-1, -2-3, -2-85 |
| 23 | Shaver  | MS IEC 60335-1, -2-8 |
| 24 | Vaporiser - Mosquito mat / Aroma  | MS IEC 60335-1, -2-101 |
| 25 | Vacuum Cleaner  | MS IEC 60335-1, -2-2  |

List of 34 Categories of Electrical Appliances Requiring CoA & Labeling



| No | Category Equipment | National Standard |
|----|---|---|
| 26 | Hi – Fidelity set  | MS IEC 60065 |
| 27 | Video & Visual Display Unit - TV | MS IEC 60065  |
| 28 | Audio & Video Player Unit – VCD, DVD | MS IEC 60065 |
| 29 | Massager  | MS IEC 60335-1, -2-32 |
| 30 | Air Conditioner <32,000 btu/hr  | MS IEC 60335-1, MS I597-2-40  |
| 31 | Christmas Light | MS IEC 60598-1, -2-20 |
| 32 | Domestic Power Tools  | MS IEC 60745-1, -2-1,-2-3,-2-4,-2-5,-2-7, -2-11, -2-14, -2-15, -2-17 MS IEC 60335-1, -2-79, -2-28, -2-45 |
| 33 | Adapter / Charger  | MS IEC 60335-1, -2-29, -2-8 MS IEC 60950-1, 60065 MS IEC 61558-1, -2-6, -2-7, -2-17  |
| 34 | Wires/Cables/Cords (0.5mm-35mm)  | MS 2112-2, -3, -4  |

❖ Approved electrical appliances or equipment are required to be affixed with safety labels before being sold to public



SIRIM
CERTIFIED TO YY : XXXX
CERTIFICATION NO:xxxxxxxx
SIRIM-ST Label Licensing Programme

SIRIM Certification Mark

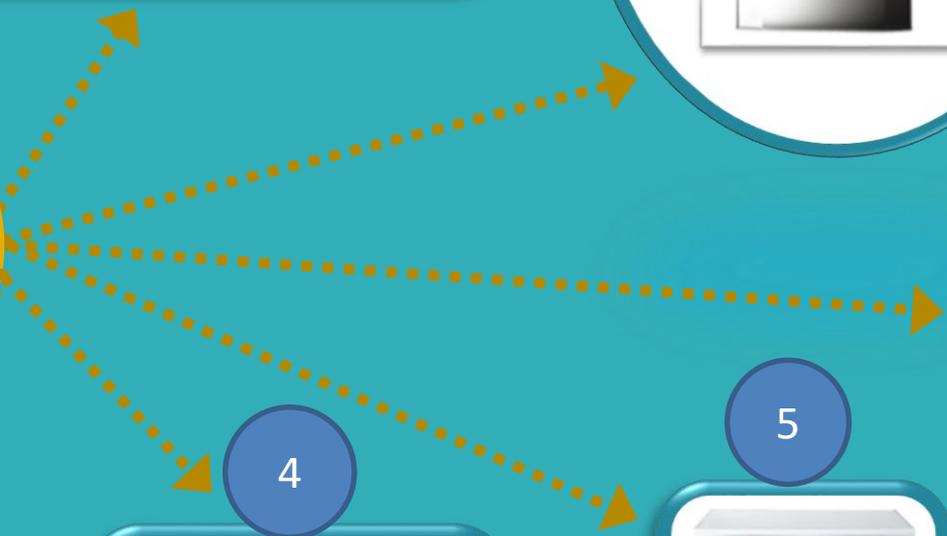
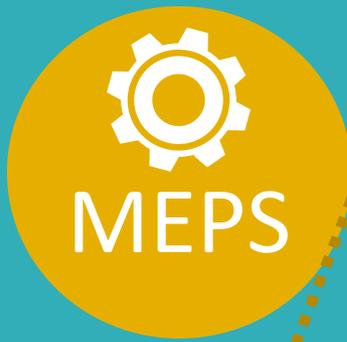
1



2



6



3



4



5





- Energy rating 1 to 5-Star
- Appliance energy rating (equals the number of stars)
- Model information
- Energy consumption (in kWh/year)
- Energy saving compared to an average 3-Star model (in percentage)

i) After completing first 1,000 hours test

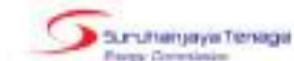
Efficacy Value: 55 lm/W



This product has been tested up to 1000 hours

ii) After completing 6,000 hours test

Efficacy Value: 55 lm/W



This product has been tested up to 6000 hours

REGULATORY REQUIREMENTS RELATED TO NATIONAL DIFFERENCES

shall be subjected to tests under tropical conditions as specified in the related standards

1

Nominal Voltages Low voltage supply

230/400V (+10%, -6%)
MS IEC 60038

2

Nominal Frequency

50Hz is allowed to fluctuate at $\pm 1\%$

3

Plug Top

3 Pole Power Plug
MS 589 / BS 1363

2 Pole Power Plug
MS 1578 / BS EN 50075

5

Class I and class II Equipment

Fig.1 for Class I and Fig.2 for Class II as symbol.



Fig.1



Fig.2

4

Power supply cord

MS2112-5 or BS EN 50525-2-11 or IEC 60227-5 (PVC insulated – flexible cords) ;

MS 2127-4 or BS EN 50525-2-11 or IEC 60245-1 & IEC 60245-4 (Rubber insulated - flexible cables/cords)

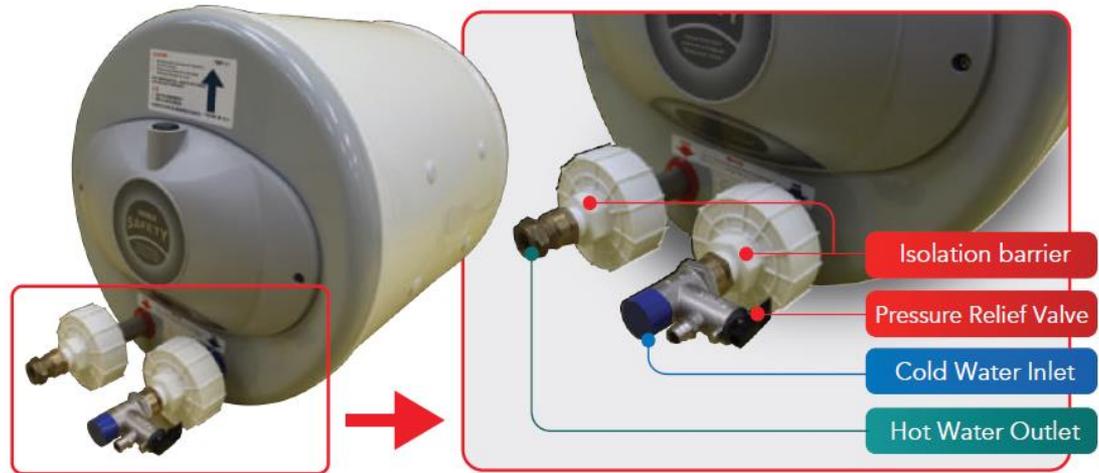


6

Isolation Barrier for Storage Water Heater

Storage water heater shall be prefitted with isolation barriers at both water inlet and outlet connections

MS 1597-2-21:2015 or IEC 60335-2-21:2012 with modification

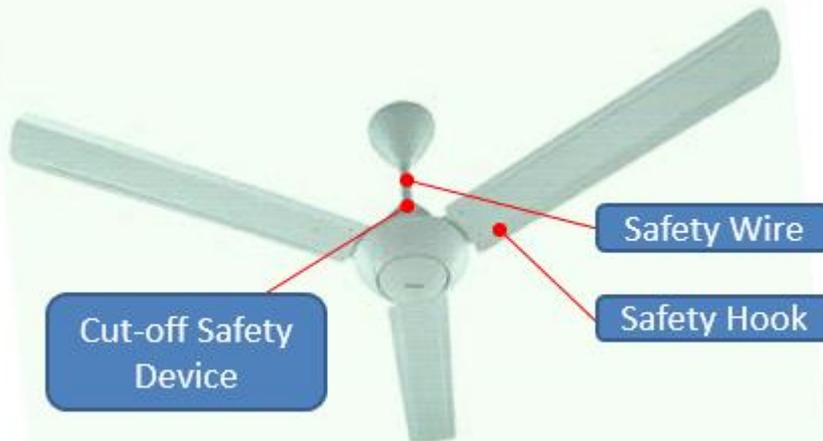


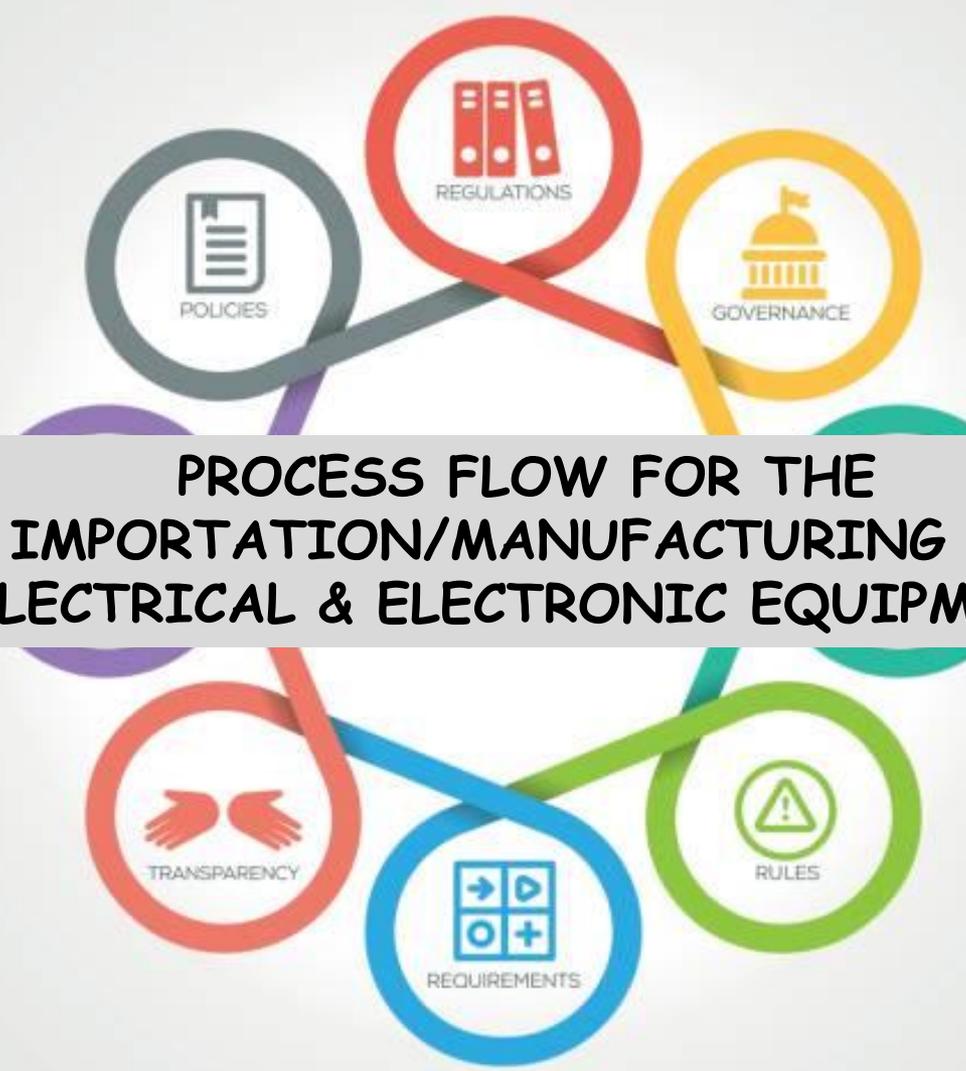
7

Suspension System for Ceiling Fan

Provided with special wire

MS 1597-2-80 or IEC 60335-2-80 with modification





**PROCESS FLOW FOR THE
IMPORTATION/MANUFACTURING OF
ELECTRICAL & ELECTRONIC EQUIPMENT**



Registered applicant apply for CoR & CoA



- ☀ Evaluation & verification
- ☀ Certificate issued



IMPORT



- ☀ Cancelled CoA
- ☀ Return to origin / dispose equipment / Product recall



CONSIGNMENT / PCS



Equipment can be placed in the market



Tested and verified, safety & MEPS labels will be issued



- i) After completing first 1,000 hours test
Efficacy Value: 55 lm/W
This product has been tested up to 1000 hours
- ii) After completing 6,000 hours test
Efficacy Value: 55 lm/W
This product has been tested up to 6000 hours

Guideline for Approval of Electrical Equipment

(ELECTRICITY REGULATIONS 1994)

INFORMATION BOOKLET
2018 EDITION

Guideline under
section 50C,
Electricity Supply
Act 1990 [Act 447]



SOALAN- SOALAN LAZIM

PERAKUAN KELULUSAN
KELENGKAPAN ELEKTRIK

01



100 units Cordless Water Kettle

**DISPOSAL
ACTIVITY**

CONSIGNMENT TEST FAILED

02



200 units Rice Cooker

CONSIGNMENT TEST FAILED

03



10 units Build-in oven

04



174 units of all type of equipment

**DISPOSAL
ACTIVITY**

2017

Perakuan Kelulusan (CoA) dan Surat Pelepasan Untuk Kelengkapan Elektrik

*Total Certificate of Approval (CoA) and
Release Letter for Electrical Appliances*

Perakuan
Kelulusan Baru
New CoA **8,644**

Pembaharuan CoA
CoA Renewal **4,810**

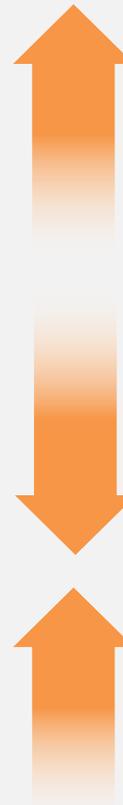
Surat
Pelepasan
Release Letter **2,933**

2018

10,339

4,678

3,315



Pembatalan Perakuan Kelulusan (CoA) Untuk Kelengkapan Elektrik

*Cancellation of Certificate of Approval
(CoA) for Electrical Appliances*

816

Perakuan Kelulusan
Dibatalkan
CoA Cancelled

211

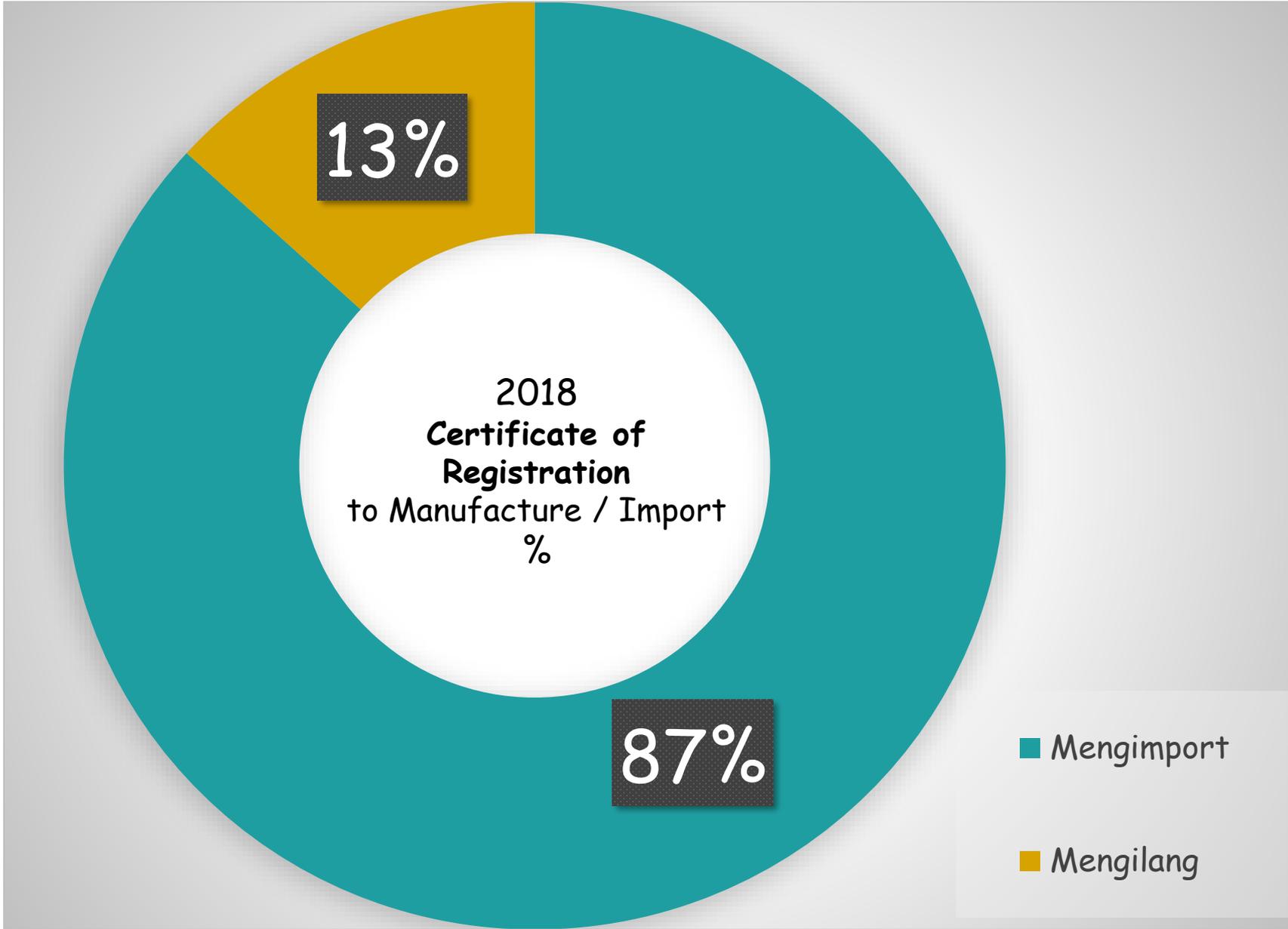
Pengimport
Yang Terlibat
Importers Involved

2017

2018

146

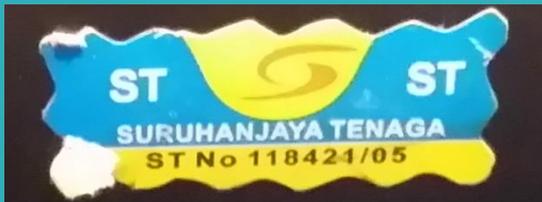
71



Sub-standard, counterfeit, unapproved electronic equipment or equipment with fake safety labels in the market may caused internal components overheated or harmful to users.



Approved label



Fake label





Enforcement Activities

HYBRID PRODUCT

- Household electrical products which are normally connected to power socket outlet have become hybrid products which can be remotely controlled or operated by itself. Such products may fall under **electrical products**, **electronics products** or **communication products**.
- Thus, the hybrid product need to get the approval from 2 (two) authorities.

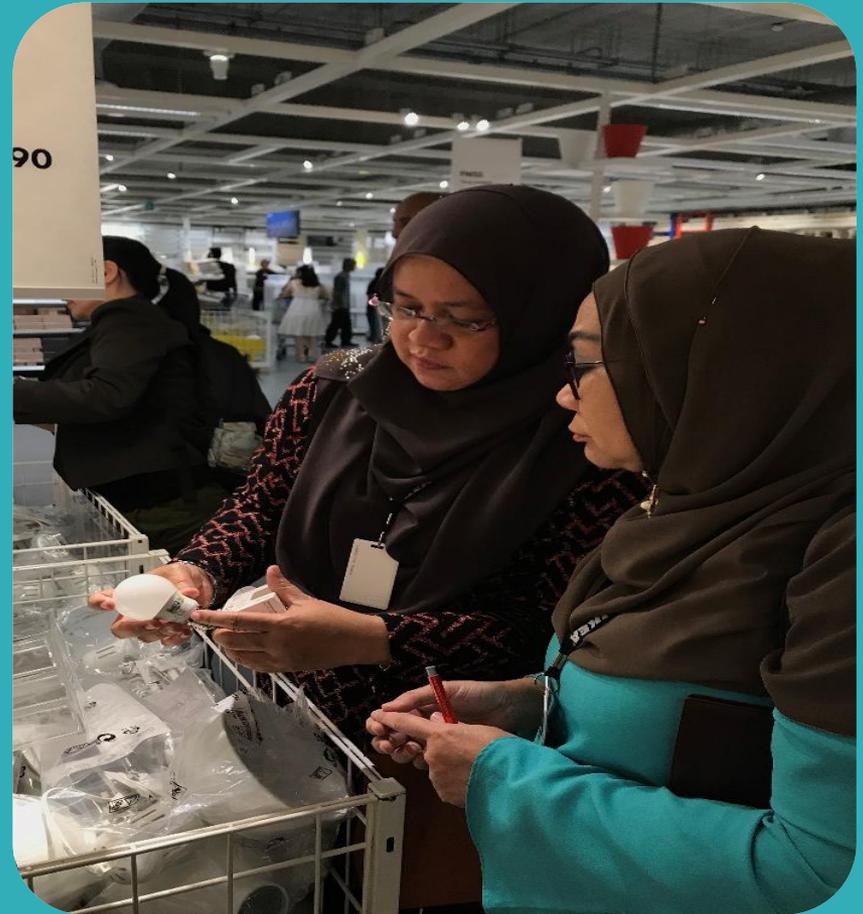


Vacuum cleaner

+



electronic devices = remote control machine



Engagement Session

'ALAT PENJIMATAN TENAGA'

Didapati Tidak Berkesan Untuk Menjimatkan Tenaga Elektrik Seperti Diiklankan



Adakah alat ini benar-benar boleh menjimatkan penggunaan tenaga elektrik tanpa pengguna perlu mengubah cara penggunaan tenaga elektrik?



Penggunaan ESD tidak membantu menjimatkan kos elektrik pengguna. Tambahan pula pengguna domestik tidak dikenakan apa-apa surcaj faktor kuasa rendah.





**ELAK DARIPADA
MEMBELI DAN
MENGUNAKAN**

**BANTAL
PEMANAS
ELEKTRIK**

**YANG TIDAK
DILULUSKAN**

Bantal pemanas elektrik dipasarkan sebagai pemanas bagi tujuan bertungku. Dipromosikan sebagai produk kesihatan, ia dijual secara meluas di pasaran dan melalui internet.





PENALTY

dreamstime



Regulation 122, electricity Regulations 1994

“Unless otherwise made an offence under the Act, the person who contravenes or fails to comply with any of the provisions of this Regulations shall be guilty of an offence and shall, on conviction, be liable to a fine not exceeding **RM5,000** or to imprisonment for a term not exceeding **1 years** or to both.”

Sec. 37(1), Electricity Supply Act 1990

“Any person who tempers with or adjusts any installation or part thereof or manufactures or importers or sells any equipment so as to cause or to be likely to cause danger to human life or limb or injury to any equipment or other property shall be guilty of an offence and for each such offence shall, on conviction, be liable to a fine not exceeding **RM100,000** or to imprisonment for a term not exceeding **5 years** or to both.”



CONCLUSION



Compatible to supply system

Comply to standard

*Tested by accredited
laboratory*

Labelled with SIRIM-ST's label

Labelled with MEPS's label



Thank You
Electricity Safety Begin with you!