

# Regulatory Requirements on Importing/Manufacturing of EEE in Malaysia

Bluewave Hotel, Shah Alam  
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# Content

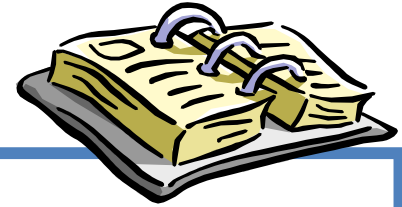
- Malaysian's Legislations on Electrical Appliances
- Regulated Electrical Appliances
- Process Flow for The Importation of Electrical Appliances
- Regulatory Requirements related to National Differences
- Statistics on Electrical Appliances in Malaysia
- Challenges to Ensure Safety of Electrical Appliances

# 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.

# Act & Regulation



- Sec 4(l), Electricity Supply Act 1990 – to prescribe the minimum standards & specifications & appraise & approve, where necessary, any electrical installation or equipment;
- Regulation 97(1), Electricity Regulations 1994 – Certificate of Approval is required to manufacture, import, display, sell or advertise for electrical equipment;
- Regulation 98, Electricity Regulations 1994 – Marking or labelling of approved equipment; and
- Schedule IV, Part II, Customs (Prohibition of Imports) Order 2012, Customs Act 1967 – List of electrical goods that required EC permit.



# Under the Malaysian Electricity Regulations 1994

- ❖ A **Certificate of approval (COA)** is required for the importation or manufacturing of electrical appliances or equipment.

The type of appliances or equipments refer to are as follows:

- any domestic equipment;
- any low voltage equipment which is usually sold direct to the general public; or
- any low voltage equipment which does not require special skills in its operation,

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



# List of 34 Categories of Electrical Appliances Requiring CoA & Labeling

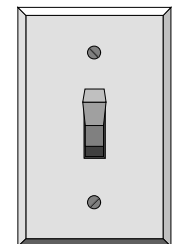
## Category Equipment

1. Plug Top (Plug)
2. Switches & Dimmers
3. S/O 15A & below
4. Lampholders
5. Ceiling Roses
6. Bayonet Caps & Multiway Adaptor
7. Lamp fitting exl tubes if imported
8. Capacitors for flourescent lamp
9. Ballasts for flourescent lamp
10. Circuit breaker:- rcd & mcb
11. Instant/Storage Waterheater  
incl heater elements if imported  
separately



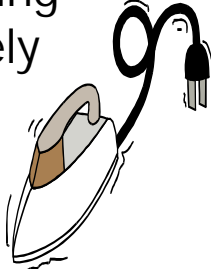
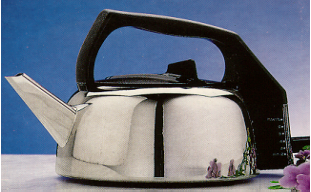



## Standard

- : MS 589-1, -3,
- : IEC 60669
- : MS 589-2, MS 1577, MS IEC 61558
- : MS IEC 60400
- : MS 770, MS IEC 60238
- : MS 769
- : MS IEC 60598, MS IEC 60838
- : MS IEC 61049
- : MS IEC 61347
- : MS IEC 61008, MS IEC 60898
- : MS 1597-2-35, MS 1597-2-21



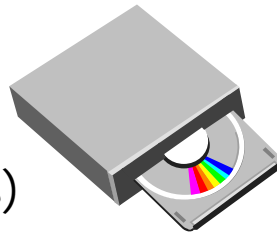
## List of 34 Categories of Electrical Appliances Requiring CoA & Labeling

<u>Category Equipment</u>		<u>Standard</u>	
12. Hand Operated Hairdryer		: MS IEC 60335-2-23	
13. Portable Luminaire Lamp		: MS IEC 60598-2-4,8,12	
14. Electric kettle including heating element if imported separately		: MS IEC 60335-2-9,13,15,36	
15. Electric Smoothing Irons		: MS IEC 60335-1, MS IEC 60335-2-3	
16. Electric shavers excluding battery operated		: MS IEC 60335-1, MS IEC 60335-2-8	
17. Kitchen Machine -Food mixer/blenders		: MS IEC 60335-2-14	
18. Immersion W/heater		: MS IEC 60335-2-73, 74	
19. Fan		: MS 1597-2-80, MS IEC 60335-	
20. Mosquito mat vaporisers		2-31,65,98	
21. Toasters / Oven		: MS IEC 60335-2-101	
		: MS IEC 60335-2,6,25	

## List of 34 Categories of Electrical Appliances Requiring CoA & Labeling

### Category Equipment

22. Hi – Fi set (Electronics)



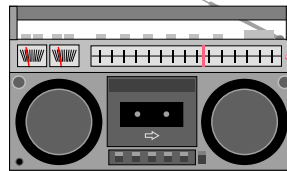
23. Television (Electronics)

24. Vacuum Cleaner



25. Video Player (Electronics)

26. Washing Machine

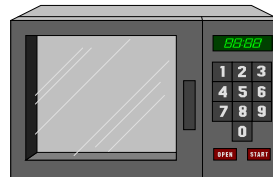


27. Refrigerator

28. Rice Cooker

29. Christmas Light & Running Light

30. Domestic Power Tool



31. Massager

32. Air-Conditioner

33. Adapter / Charger

34. Wires/Cables/Cords



### Standard

: MS IEC 60065

: MS IEC 60065

: MS IEC 60335-2-2,

: MS IEC 60065

: MS 1597-2-5,7

MS IEC 60335-2-4,11,43

: MS 1597-2-24

: MS IEC 60335-2-15

: MS IEC 60598-2-20

: MS IEC 60745-2-

1,3,4,5,7,11,14,15,17,28,45,79

: MS IEC 60335-2-32

: MS 1597-2-40

: MS IEC 60950, MS IEC 60335-2-29

MS 2112-3,4,5



# REGULATORY REQUIREMENTS RELATED TO NATIONAL DIFFERENCES

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

No	Items	Requirements
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	<p><b>3 Pole Power Plug</b> MS 589 / BS 1363</p> <p><b>2 Pole Power Plug</b> MS 1578 / BS EN 50075</p>
4	Power supply cord	<p>MS2112-5 or BS EN 50525-2-11 or IEC 60227-5 (PVC insulated – flexible cords) ;</p> <p>MS 140 or BS EN 50525-2-11 or IEC 60245-1 &amp; IEC 60245-4 (Rubber insulated - flexible cables/cords)</p>
5	Class I and class II Equipment	Fig.1 for Class I and Fig.2 for Class II as symbol.



Fig.1



Fig.2

No	Items	Requirements
6	Safety labels requirements	SIRIM-ST Label for Imported Equipment/PCS

### a) Sticker Type



### b) Emboss Type



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

SIRIM Certification Mark



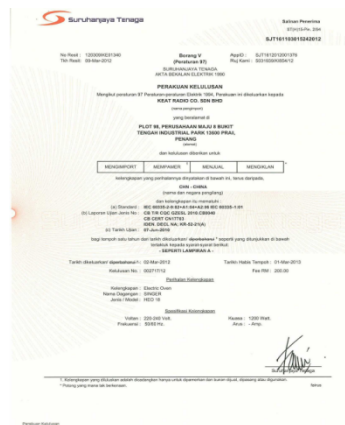
# Process flow for the importation/manufacturing of electrical & electronic equipment

Registered applicant  
apply for CoA

Name of Equipment  
Brand and Model  
Type test report



ST issued CoA to  
applicant



Import the EE  
equipment



Send the  
equipment to CBTL  
for consignment  
test and verification



Tested & failed  
consignment

Return to origin /  
dispose equipment



Tested and verified,  
safety labels will be  
issued



Applicant to  
affix labels on  
the equipment



Equipment can be placed  
in the market



# Recognised Test Report/ Certificate



Type test report shall be produced by any of the following laboratories:-

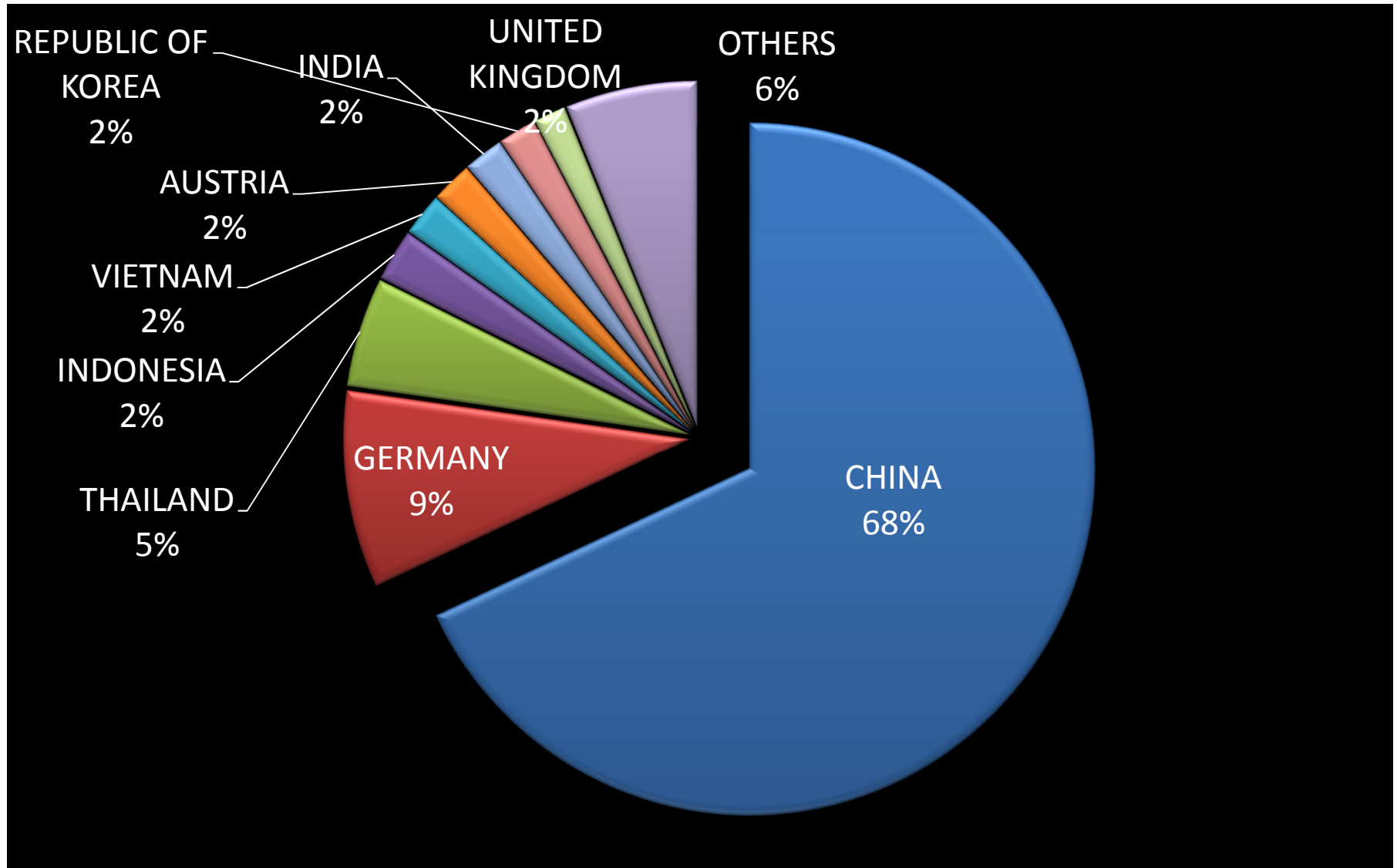
- ✓ Sirim Berhad / accredited lab under Laboratory Accreditation Scheme of Malaysia (SAMM) by DSM;
- ✓ Lab under IECEE CB Scheme which CB test report need to be accompanied by CB test certificate;
- ✓ Accredited lab by APLAC MRA or ILAC MRA in which the test report need to be accompanied with confirmation DSM letter;
- ✓ Lab listed as Designated Testing Laboratory (DTL) under ASEAN EEE MRA



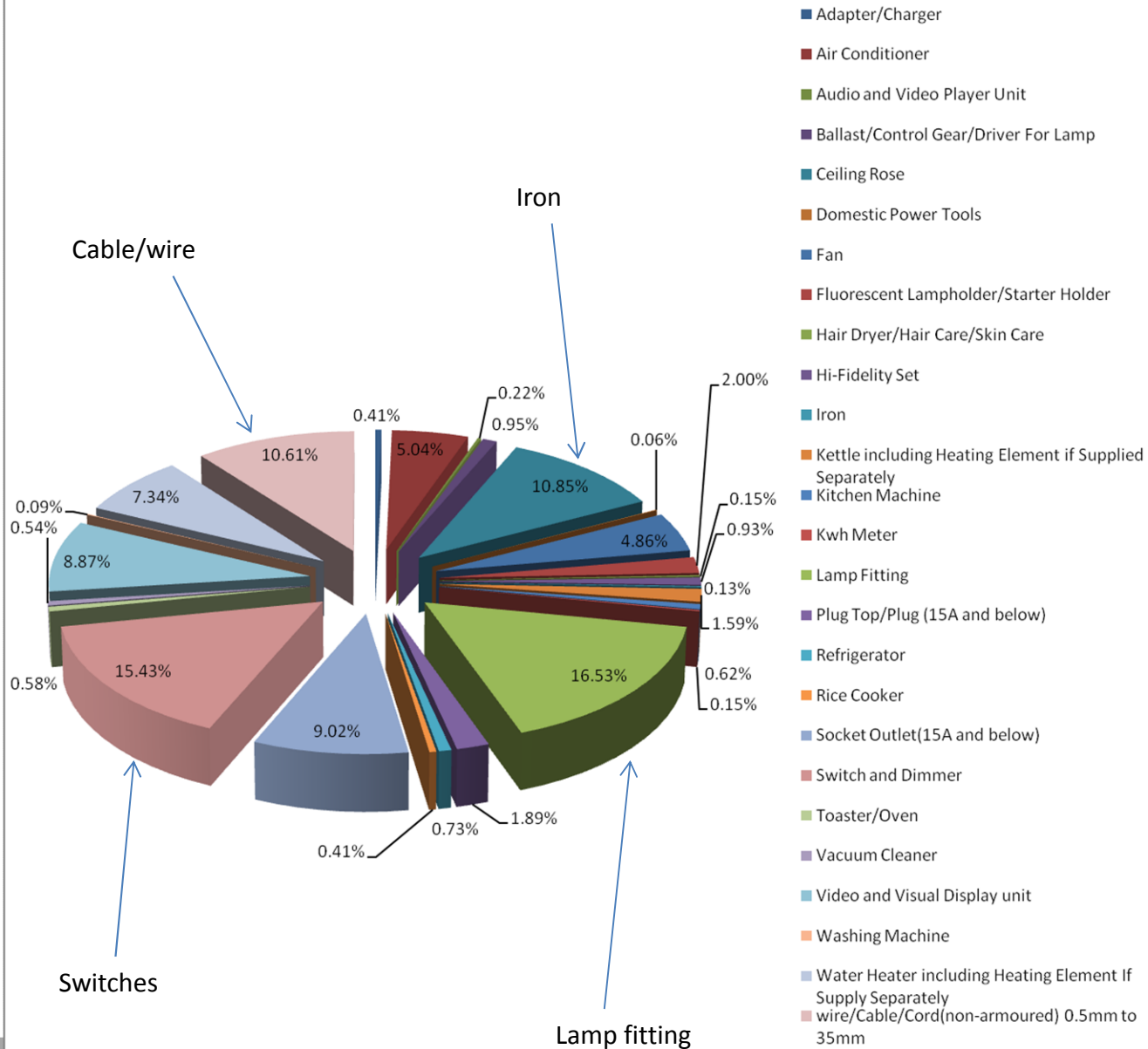
## Statistics on activities of electrical equipment regulatory in Malaysia

Year	Certificate of Approval (COA)			Renew COA Import & Manufacture	Release Letter From Customs Detention		Total
	Import	Manufacturer	Exhibition		Regulated Item	Non- Regulated Item	
2006	2,813	902	29	1,757	881	115	6,497
2007	2,797	944	37	1,921	1,039	374	7,112
2008	1,913	689	37	2,263	913	321	6,136
2009	3,046	972	58	2,538	527	367	7,508
2010	2,587	693	61	2,557	570	337	6,805
2011	3,557	1,187	36	2664	518	341	8,303
2012	3,957	1,069	17	3,041	815	482	9,381
2013	5,426	1,282	6	1,841	905	1,819	11,279
2014	7,311	1,894	29	1,738	792	2,016	13,780
2015	7,415	1,413	62	4,319	819	1,229	15,257

## Importing countries of electrical appliances In Malaysia (2001-2014)

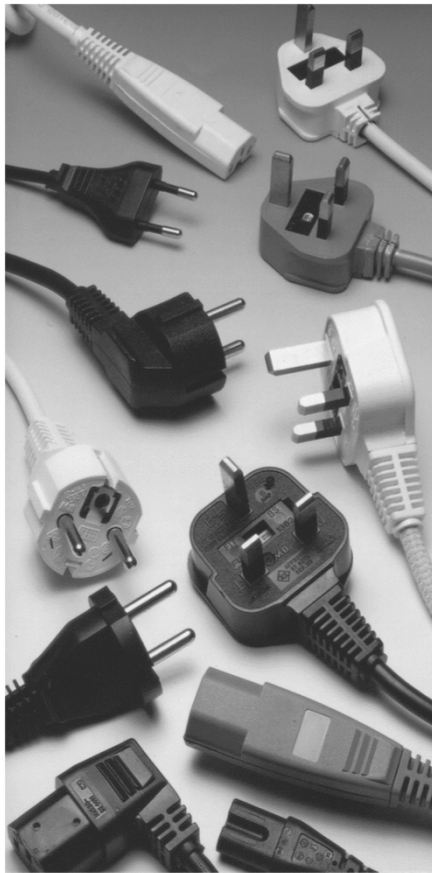


# Manufactured electrical appliances in Malaysia (2001-2014)



# Challenges

- Different countries may required different set of supply parameter or national deviation (voltage, frequency and **plug top configuration**).



Item	Category	Detail of Equipment	Standards	
			Domestic	Relevant International
1	<b>PLUG TOP/PLUG (15A and below)</b>	Flat Non-Rewirable Two Pole Plug with supply cord (max. 2.5A)	MS 1578:2003	BS EN 50075:1991
		13 A Fused Plug	MS 589-1:2011	BS 1363:PT.1: 1995
		15 A Plug	MS 1577:2003	No corresponding international standard

# Market Surveillance

- 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





- 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



What will happened if the electrical equipment do not meet minimum requirement?

Can cause fire, electric shock, explosion, radiation and others risk that cause injured/death to human and or damage to property.





Thank you for attention

Safety begin from us.