

Inspiring trust in a changing world

Solutions that ensure quality, safety and sustainability for future generations



Choose certainty.
Add value.

Accessing Singapore Market and beyond for EE products

Asia Network Foun
16 Nov 2017

Chay-Lee Swee Gee
VP(Certification)
TÜV SÜD PSB Pte Ltd



1 Consumer Protection (Safety requirements) Registration Scheme (CPS)

2 Consumer Protection (Consumer Goods Safety Requirements) Regulations 2011 (CGSR)

3 Mandatory Energy Labeling Scheme (MELS)

4 ROHS Regulation (SG ROHS)

5 Global Market Access



150+
YEARS OF
QUALITY, SAFETY
& SUSTAINABILITY



1,000
LOCATIONS
WORLDWIDE



€2.3
BILLION
IN ANNUAL
REVENUE



24,000
EMPLOYEES



43%
OF REVENUE
OUTSIDE GERMANY



574,000
CERTIFICATES



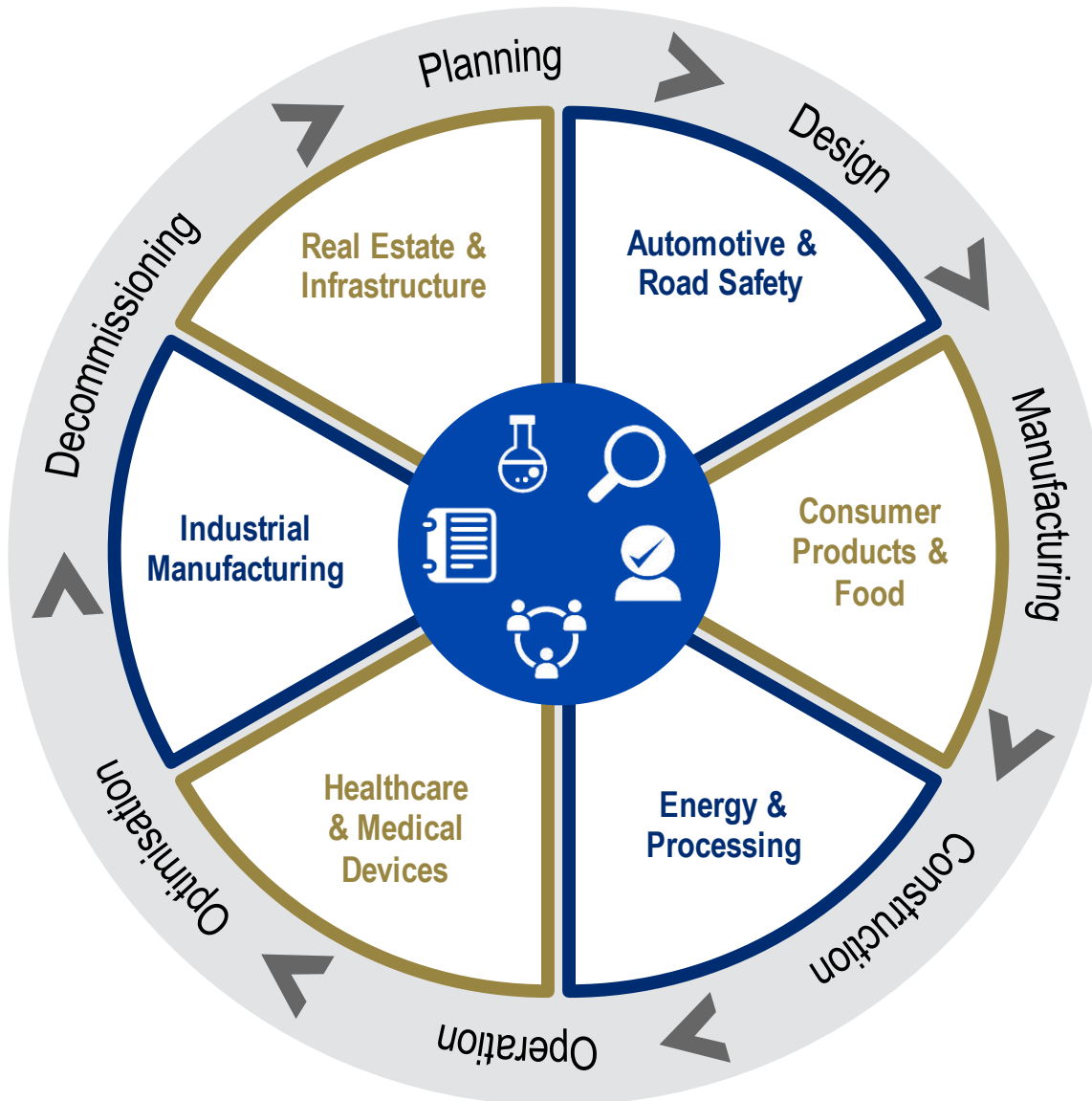
100%
INDEPENDENT &
IMPARTIAL



1-STOP
SOLUTIONS
PROVIDER

Note: Figures have been rounded off.

End-to-end solutions for the entire business lifecycle





Testing & product certification

Beyond testing for compliance with directives, we issue TÜV SÜD certifications based on standards set according to internationally recognised benchmarks.



Inspection

We independently verify that at every stage your systems, processes and procedures comply with the relevant codes, requirements, regulations and standards.



Auditing & system certification

We audit and certify management systems for virtually all industries, ensuring your value chain complies with requirements for quality, performance and IT security according to international, national and other relevant standards.



Knowledge services

We provide knowledge services on diverse topics ranging from quality, safety and risk to environmental protection, regulatory requirements and process optimisation.



Training

We support people and organisations to enhance performance through a wide range of work safety, technical, management systems, executive training programmes and certified qualifications.



Services and laboratory infrastructure in ASEAN



Services

-  Testing & Product Certification Services
-  Auditing Services
-  Inspection Services
-  Training & Knowledge Services

Laboratory infrastructure

-  Electrical & Electronics
-  Chemical and Materials
-  Food, Health & Beauty
-  Hardlines
-  Automotive
-  Softlines

Singapore



Indonesia



Thailand



Malaysia



Vietnam



Philippines





Testing & Product Certification

Chemical, physical, mechanical, electrical and environmental testing and product certification.



Inspection

Product, system, building, plant and infrastructure inspection.



Auditing & System Certification

Audits system certification in a variety of fields including quality, safety, energy, IT security, social compliance and environment.



Knowledge Services

Safety, quality, risk, environmental protection and regulatory advisory.



Training

Training in work safety, technical skills, management systems and executive programs.



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Consumer Protection (Safety requirements) Registration Scheme

Objective

- safeguard consumers' interest by ensuring household products, designated as controlled goods, meet the specified safety standards administered by SPRING Singapore as the Safety Authority.

Compliance requirements

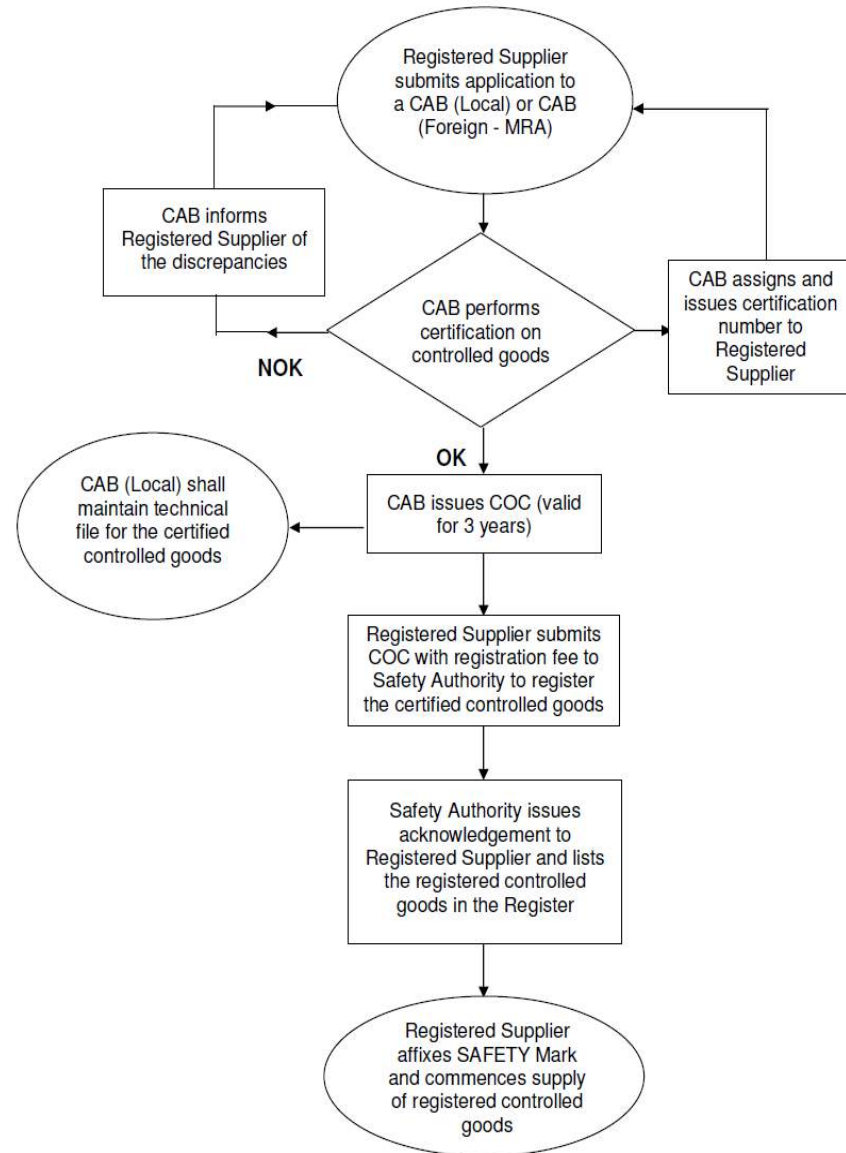
- Goods controlled under the Consumer Protection (Safety Requirements) Regulations 2002 shall be registered based on Certificate Of Conformity (COC) issued by designated third party Conformity Assessment Bodies (CABs).
- A person guilty of an offence, shall be liable on conviction, to a fine not exceeding \$10,000/- to imprisonment for a term not exceeding 2 years, or both

List of controlled goods

1.	Air Cooler	16.	Refrigerator	31.	Portable cooking gas appliance
2.	Adaptor	17.	Rice cooker	32.	3-pin rectangular type 13A plug
3.	Any other audio products	18.	Room air conditioner	33.	Fuse ($\leq 13A$) for use in plug
4.	Cooking range	19.	Television/Video display unit	34.	3-pin round type 15A plug
5.	Coffee maker, slow cooker, steam boat and similar appliances	20.	Table/Standing Fan	35.	Multi-way adaptor
6.	Decorative lighting fixture	21.	Table lamp/standing lamp	36.	3-pin portable socket outlet
	Hair Dryer	22.	Toaster, grill, roaster, hot plate, deep fryer, wok and similar appliances	37.	Portable cable reel
7.	Home computer(inclusive of monitor, printer, speaker and other mains operated accessories	23.	Video cassette recorder	38.	Instantaneous electric water heater
8.	High fidelity set	24.	Vacuum cleaner	39.	Mains pressure electric storage water heater
9.	Iron	25.	Washing machine	40.	Residual Current Circuit Breaker
10.	Immersion water heater	26.	Wall fan/Ceiling fan	41.	3-pin 13A socket outlet
11.	Kettle	27.	Components of the LPG gas system-Hose	42.	3-pin round type 15-A socket outlet
12.	Laser disc set	28.	Components of the LPG gas system-regulator	43.	Domestic electric wall switch
13.	Microwave oven		Components of the LPG gas system-Valve	44.	Ballast for tubular fluorescent lamp
14.	Mobile split air conditioner	29.	Gas Cooker	45.	Isolating transformer for downlight fitting
15.	Mixer, blender, mincer and similar appliances	30.	Gas Canister		

FLOW-CHART FOR REGISTRATION OF CONTROLLED GOODS

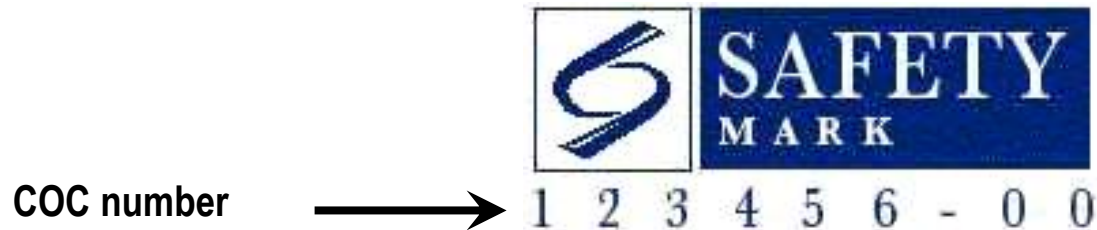
- Original copy of the PSB application forms duly completed & signed by the local applicant in Singapore.
- **IECEE CB Certificate and CB test report(s) or RTL reports**
- Authorisation letter from the applicant of the CB test report to authorise the local applicant in Singapore to use the CB test report
- **Exterior & interior colour photos**
- Technical documentation (rating label, circuit diagrams, component list, etc)
- **User manual in English Language**
- Letter of authorisation from the Registered Supplier (RS) in Singapore if an agent is appointed.





Safety Mark

- All controlled goods certified by TÜV SÜD PSB and registered with the Safety Authority must bear the Safety Mark before they can be supplied to the Singapore market.
- The applicants must affix the Safety Mark (together with the COC number) on the controlled goods or their packaging (in a prominent location).
- The applicants can only affix the Safety mark after receiving the COC and the Letter of Acknowledgment (LOA).





1) Reduction in the number of Product Categories

Controlled goods (CG) would be reduced from 45 to 33 categories due to re-definition or re-grouping of category and removing some CG (eg. CG such as immersion water heater, mobile split air-conditioner, VCR, laser disc & video compact disc players and CRT TV receiver would be removed from the regulation)

2) Classification of CG into 3 Risk Levels:

- a. High Risk To be certified by CAB and be registered with Safety Authority
A valid test report (≤ 3 years) is required for renewal of COC

- b. Medium Risk To be certified by CAB and be registered with Safety Authority

- c. Low Risk SDoC (supplier declaration of conformity) and registration with safety Authority (Likely CG are PC, printer, scanner etc)

3) Addition of new controlled goods

Hair curler/styler/straightener, LED lighting chain, LED table/standing lamp, all LED driver for LED lighting.



Renewal of registration for high risk Controlled Goods

Renewal shall be supported with a valid new test report that is within 3 years when submitting to the CAB for Recertification . This took effect for registrations expiring on or after 1 January 2015

The following Controlled Goods are deemed as high risk:

1. Gas Cooker
2. Portable cooking gas appliance
3. Components of LPG system (hose, regulator & valve)
4. 3-pin 13A socket outlet
5. 3-pin round type 15A socket outlet
6. Instantaneous electric water heater
7. Mains pressure electric storage water heater
8. Ballast for fluorescent lamp
9. Refrigerator
10. Domestic electric wall switch
11. LED driver for LED downlight fitting



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Consumer Protection (Consumer Goods Safety Requirements) Regulations 2011

Implemented on 1 April 2011

Safety Authority : Spring

Scope

Covers all Consumer Goods which are not already regulated by other specific legislations. This includes toys, children products, apparel, sports and recreation products, furniture, mattresses and bedding, DIY tools, etc.

Penalties

The first time offender on conviction shall be liable to a fine not exceeding \$2,000 or to an imprisonment for a term not exceeding 12 months or to both. In the case of a second or subsequent offence, the offender shall be liable to a fine not exceeding \$10,000 or to an imprisonment for a term not exceeding two years or to both.



Consumer Goods covered by CGSR are classified into 2 categories:

Category 1:

Consumer Goods for which there are applicable International Organisation for Standardisation (ISO) standards, International Electrotechnical Commission (IEC) standards, European Standards (EN) or ASTM standards.

Category 1 Consumer Goods have to meet the requirements imposed by either ISO, or IEC, or EN or ASTM standards, as well as additional safety requirements imposed by the Safety Authority and as listed in the Information Booklet.

Category 2:

Consumer Goods *other than Category 1 goods*

Category 2 Consumer Goods have to conform to applicable regional or national safety standards

Additional Safety Requirements Imposed by the Safety Authority

Consumer Goods	Safety Requirements
Toys & childcare articles	Plasticized materials in toys and childcare articles shall not contain concentration of more than 0.1% by mass Diethyl hexyl phthalate (DEHP), Dibutyl phthalate (DBP) or Benzyl butyl phthalate (BBP).
Toys & childcare articles	Plasticized materials in toys and childcare articles that can be placed in the mouth shall not contain concentration of more than 0.1% by mass Di-iononyl phthalate (DIDP), Di-isodecyl phthalate (DINP) or Di-n-octyl phthalate (DnOP).

Note: *Childcare article* is defined as any product intended to facilitate sleep, relaxation, hygiene, the feeding of children or sucking on the part of children (EC Directive 2005/84/EC).



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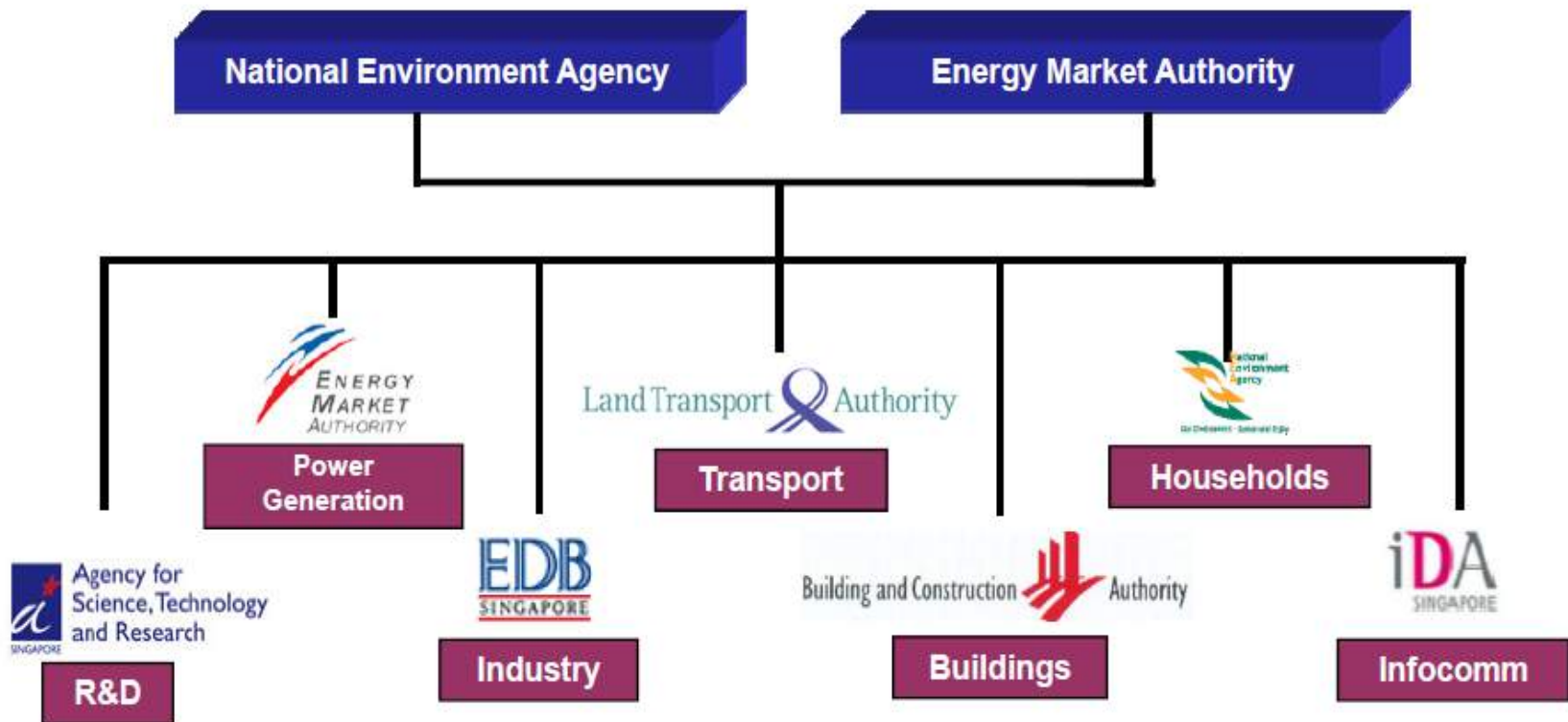
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Energy Efficiency is a Inter-agency Coordinated Effort

- Energy Efficiency Programme Office (E²PO)



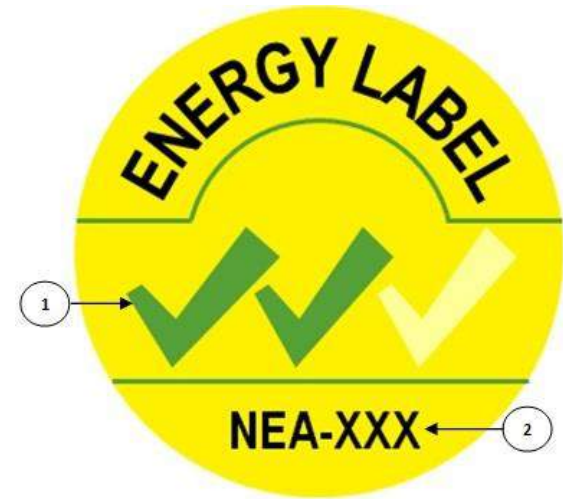
Each member agency represents a key energy use sector or offers key capabilities

Since 1 January 08, registrable goods must carry energy labels under **the Energy Conservation Act CAP 92 C**

The Scheme empowers consumers to make informed choices about the energy efficiency of household appliances so as to better manage their energy bills

The energy labels rate models using ticks

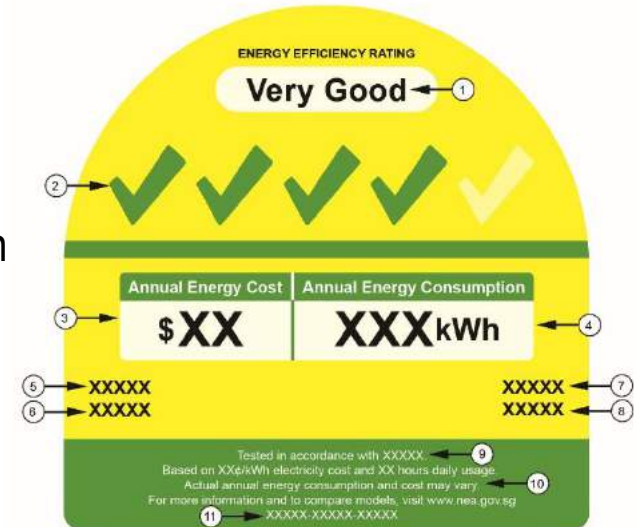
The most energy efficient models are rated at 3 ticks for lamps and 5 ticks for the other registrable goods



For lamps

Estimated annual energy cost & consumption
Displayed with assumptions stated

- Electricity tariff used
- Usage pattern



Air-conditioner, Refrigerator, Clothes Dryer and Television

Minimum Energy Performance Standards (MEPS)

Effective instrument to increase average efficiency of appliance by prohibiting sale of models that do not meet the standards

-Consumers would only get to choose from the models that are available for sale

MEPS set to remove inefficient models in the market

- Suppliers will be motivated to bring in more energy efficient models of appliance into the local market

Fridges and air conditioners (2011, revised in 2013)

Clothes dryers (2014)

Incandescent lamps

Compact fluorescent lamps

LED lamps

Fridges (revised in 2017)





Registration of Importers or manufacturers

The application can be made through NEA's [ELS Online Portal](#) .

Registration of Registrable goods

Application for registration shall be made online. The application can be made through the [ELS Online Portal](#).

The following information and documents are required for registration:

- Company administrator's Singpass
- Test report
- Letter of authorization, if the registration is made by an appointed third-party

Technical File

Registered suppliers shall maintain a technical file for each registered model during the validity period of the COR.

- COR
- Test Report
- User manual
- Details of each model that has been registered under a family of models, if applicable
- Marketing catalogue or brochure
- Detailed records of modifications if applicable
- Upon request, the technical file shall be made available to NEA within 5 working days.



Testing Laboratories

Test Reports shall be provided by one of the following categories of testing laboratories:

- Testing laboratories that are accredited by the Singapore Accreditation Council (SAC) to carry out the tests in accordance with the applicable test standards;
- Testing laboratories in countries other than Singapore that are accredited by their local accreditation bodies, which have signed a Mutual Recognition Arrangement (MRA) with the SAC, to carry out the tests in accordance with the applicable test standards; or
- Manufacturer's in-house testing laboratories.



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Date of enforcement

Gazetted on 1st June 2016 under the Environmental Protection and Management Act (EPMA) and is effective from **1st June 2017**.

Scope

6 categories of electrical and electronic equipment (EEE)

mobile phones

portable computers

Refrigerators

air conditioners

panel TVs

washing machines

6 Restricted Hazardous Substances (HS)	Allowable Concentration Limits
Lead (Pb)	Maximum 1,000ppm (0.1% by weight)
Mercury (Hg)	
Hexavalent Chromium (Cr VI)	
Polybrominated biphenyls (PBB)	
Polybrominated diphenyl ethers (PBDEs)	
Cadmium (Cd)	Maximum 100ppm (0.01%by weight)



What are excluded from the control of SG-RoHS?

Spare parts and components which are sold separately

Batteries and accumulators used in EEE (Hg content of battery controlled under Environmental and Management Act.

Used or second-hand EEE

Packaging used by EEE

If the controlled EEE can be used for non-household application which is currently not in the scope of SG-RoHS, does the EEE have to comply with SG-RoHS controls?

Yes, the controlled EEE is still required to comply with SG-RoHS controls. Importers and EEE manufacturers are responsible for having full knowledge of the intended use of their



Compliance Requirements

Traders/importers are required to declare their product conformity by producing a company declaration letter at the importation stage.

- a) Select correct HS classification and Product code in Tradenet
- b) Submit manufacturer/importer declaration letter (once off) via email to nea.pcd_hs@nea.gov.sg
- c) retain the declaration letter and technical documentation which are to be produced at NEA's request within 30 days.

The controlled EEE that are branded under company A is imported by another company. The company (trader) importing may declare on behalf of company A

If the EEE has various manufacturing plants, the importer may declare the EEE under its name instead of gathering manufacturers' declaration from the various manufacturers' plants

For the technical documentation, companies may demonstrate compliance in accordance with EN 50581: 2012 standard or otherwise prove compliance to NEA's requirements. NEA also accepts other internationally recognised test methods.



Compliance Requirements

What will happen to non-compliant controlled EEE in the market implementation?

Non SG ROHS compliance, companies would have to apply for the Hazardous Licence to re-export these EEE.

<http://www.nea.gov.sg/anti-pollution-radiation-protection/chemical-safety/hazardous-substances>

[To insert Company's Letter Head] | DD/MM/YY

To: Singapore National Environment Agency

DECLARATION

1. Name, address and contact (i.e. Corporate phone number and email address) of the importer or the manufacturer in Singapore:
2. This declaration of conformity is issued under the sole responsibility of the importer or manufacturer in Singapore:
3. My company/ I _____ hereby declare that the following EEE are in conformity with the stipulated Restriction of Hazardous Substances (RoHS) limits under the Environmental Protection and Management Act, set forth for the 6 controlled EEE.

Type of EEE	Model No (for identification of EEE , allowing traceability)

4. Additional information: (I.e. Photograph/photographs, where appropriate.)

Signed for and on behalf of:
(place and date of issue):
(name, function) (signature):

Note: Please always maintain a single declaration of conformity per company. Should there be changes to the content of the declaration, a revision history should be included to reflect the date of the changes (i.e. additional model no). Thank you.



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Why do we need standards? Who benefit from it?

Why do we need standards?



Governments

Able to reduce trade barriers caused by different certification criteria of countries. Countries can better meet their obligations as stated in the World Trade Organization's Agreement on Technical Barriers to Trade.



Industry

Reduce delays and costs of multiple testing since a product can be certified once by a single National Certification Body (NCB) which can be accepted by others worldwide, usually without the need for further product assessment. Markets can be expanded and product to market time reduced.



End Users

Ultimately anyone using a product which has been tested and certified using the IECEE CB Scheme has the assurance that the goods purchased will perform to expectations and are reasonably safe when used as intended.

Five avenues for Global Market Access



Depending on product category and target market, manufacturers can achieve Global Market Access through the following avenues.

**Governmental
MRAs**

**Third-party
accredited bodies**

**Bilateral
agreements**

**Multilateral
agreements**

**Interface with
regulators**



Depending on product category and target market, manufacturers can achieve Global Market Access through the following avenues.

Governmental MRAs

Mutual Recognition Agreements are inter-governmental recognition of each other's Certification Bodies and approvals.

Select an FTA

- ASEAN - Australia - New Zealand Free Trade Area
- ASEAN - China Free Trade Area
- ASEAN - India Free Trade Area
- ASEAN - Japan Comprehensive Economic Partnership
- ASEAN - Korea Free Trade Area
- ASEAN Free Trade Area
- China - Singapore Free Trade Agreement
- EFTA - Singapore Free Trade Agreement
- GCC - Singapore Free Trade Agreement
- India - Singapore Comprehensive Economic Cooperation Agreement
- Japan - Singapore Economic Partnership Agreement
- Korea - Singapore Free Trade Agreement
- New Zealand - Singapore Comprehensive Economic Partnership
- Panama - Singapore Free Trade Agreement
- Peru - Singapore Free Trade Agreement
- Singapore - Australia Free Trade Agreement
- Singapore - Costa Rica Free Trade Agreement
- Singapore - Jordan Free Trade Agreement
- Turkey - Singapore Free Trade Agreement
- Trans - Pacific Strategic Economic Partnership
- United States - Singapore Free Trade Agreement

Avenues for Global Market Access



Depending on product category and target market, manufacturers can achieve Global Market Access through the following avenues.

Third-party accredited bodies

Local regulators define the requirements for Certification Bodies to be accredited for the provision of third-party certification services.



Avenues for Global Market Access



Depending on product category and target market, manufacturers can achieve Global Market Access through the following avenues.

Interface with regulators

Certification is issued by the target country's regulatory agency.

GSO MEMBER BODIES



Avenues for Global Market Access



Depending on product category and target market, manufacturers can achieve Global Market Access through the following avenues.

Bilateral agreements

Bilateral agreements or Memorandums of Understanding allow approvals or certifications for products to be obtained between target countries' Certification Bodies.

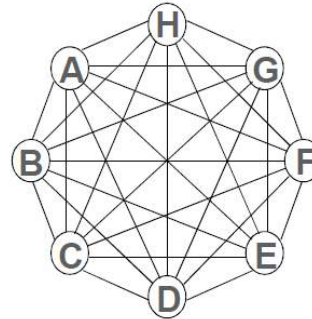
Multilateral agreements

Mutual recognition of multiple national Certification Bodies.

IECEE. Taking Conformity Assessment Further



«Bilateral recognition»



$n(n-1)/2$ relations

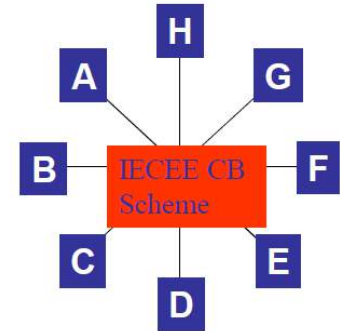
$n = 57$

1596 audits

798 agreements

2008-06-23

Peer assessment Multilateral



n relations 57 NCBs

57 audits

1 agreement

9/98

Technical collaboration EU/Brazil - New Approach Directives – Geneva, Switzerland

Avenues for Global Market Access



Depending on product category and target market, manufacturers can achieve Global Market Access through the following avenues.


Governmental MRAs

Third-party accredited bodies

Bilateral agreements

Multilateral agreements

Interface with regulators

The background of the slide features a low-angle, aerial view of a large stack of colorful shipping containers in shades of red, blue, and green. In the upper left, a white commercial airplane is captured in flight against a clear blue sky with some light clouds.

TÜV SÜD has access to all avenues for Global Market Access, allowing us to be flexible when meeting your needs.

