FAQs of the Energy Efficiency Scheme List
### Frequently Asked Questions of the Energy Efficiency Scheme List

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FAQ of ARI Scheme in USA

i. What is the scheme?

One of ARI’s most important functions is to develop and publish technical standards and guidelines for the HVAC/R industry and its products. ARI guidelines provide a recommended approach or parameters for conducting an activity or task. Its standards establish rating criteria and procedures for measuring and certifying product performance. In this way, products are rated on a uniform basis so buyers and users can make informed buying choices. The more than 80 standards and guidelines published by ARI are mainly performance-rating standards, although some are application or terminology standards. Many ARI standards are accepted as American National Standards.

To earn the ARI Performance Certified™ seal, ARI verifies that manufacturers’ performance ratings meet its standards through continuous and extensive laboratory testing. For manufacturers who voluntarily participate in the certification program, ARI annually selects a significant portion of their products to be tested by an independent laboratory under contract to ARI. Randomly selected units are evaluated using procedures stipulated in the applicable ARI standards to certify that they meet the manufacturers’ published performance ratings. A test failure requires re-rating or ceasing production of the failed product.

ii. What is ARI’s website?

www.ari.org

iii. Is participation in ARI’s program mandatory or voluntary?

It is a voluntary scheme.

iv. When do I need to meet the scheme?

All ARI members or non-members can join the program from the program implement.

v. What products are covered under ARI’s program?

Air-to-Air Energy Recovery Ventilators
Automatic Commercial Ice-Makers and Ice-Storage Bins
Central Station Air-Handling Units
Commercial Refrigerated Display Merchandisers and Storage Cabinets
Direct Geo-Exchange Heat Pumps
Forced Circulation Air-Heating and Air-Cooling Coils
Heat Pump Pool Heaters
Liquid to Liquid Heat Exchangers
vi. Where can I get my products tested? Are there any special lab accreditations needed?

By contract with ARI, only Intertek’s Cortland, New York laboratory can conduct the testing.

vii. What are the specific testing standards?

- [Air-to-Air Energy Recovery Ventilators](https://www.arinet.org/standards/1060) (ARI 1060)
- [Automatic Commercial Ice-Makers and Ice-Storage Bins](https://www.arinet.org/standards/810) (ARI 810, ARI 820)
- [Central Station Air-Handling Units](https://www.arinet.org/standards/430) (ARI 430)
- [Commercial Refrigerated Display Merchandisers and Storage Cabinets](https://www.arinet.org/standards/1200) (ARI 1200)
- [Direct Geo-Exchange Heat Pumps](https://www.arinet.org/standards/870) (ARI 870)
Forced Circulation Air-Heating and Air-Cooling Coils (ARI 410)

Heat Pump Pool Heaters (ARI 1160)

Liquid to Liquid Heat Exchangers (ARI 400)

Non-Condensable Gas Purge Equipment for Use With Low Pressure Centrifugal Liquid Chillers (ARI 580)

Packaged Terminal Air-Conditioners (ARI 310/380)

Packaged Terminal Heat Pumps (ARI 310/380)

Reclaimed Refrigerant (ARI 700)

Refrigerant Recovery/Recycling Equipment (ARI 740)

Refrigerant Testing Laboratory Certification (ARI 700)

Room Fan-Coils (ARI 400)

Single Package Vertical Air Conditioners (ARI 390)

Single Package Vertical Heat Pumps (ARI 390)

Transport Refrigeration (ARI 1110)

Unit Ventilators (ARI 840)

Unitary Air-Conditioner Equipment (includes Mixed-Match Coils) (ARI 210/240)

Unitary Heat Pump Equipment (includes Mixed-Match Coils) (ARI 210/240)

Unitary Large Equipment (ARI 340/360, ARI 365)

Variable Air Volume Terminals (ARI 880)

Water Chilling Packages Using the Vapor Compression Cycle (Air-Cooled) (ARI 550/590)

Water Chilling Packages Using Vapor Compression Cycle (Water-Cooled) (ARI 550/590)

Water-to-Air and Brine-to-Air Heat Pumps (ISO 13256-1)

viii. How do I apply? How many models must be tested? Price/samples/application documents/lead-time?

- The participant can contact ARI directly and submit an application according to the ARI Certification Program Procedural Guide on the website (www.ari.org).

- New participants must have all models tested. 30% of basic models are tested per year after the first year. ARI selects which models to test.
• Must achieve 95% of ratings for capacity & efficiency

• A directory of certified ratings are published on-line in real time

ix. Are follow-up inspections or market surveillance required?

• If the unit tested is not compliant then future units will be tested more often

• If continued violations, ARI will impose penalties and the listing may be withdrawn

• Test results are reported to FTC for labeling as well as to the DOE

x. Does ARI list participating products on their website?

All models which have joined the ARI Certification Program are listed on the website.

FAQ of AHAM Scheme in USA

i. What is the scheme?

AHAM administers product certification programs for **Room Air Conditioners, Dehumidifiers, and Room Air Cleaners**. On a voluntary basis, manufacturers certify the following performance characteristics of each product and AHAM verifies these attributes through testing at a third party independent laboratory.

<table>
<thead>
<tr>
<th>Product Type</th>
<th>Certified Performance Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room Air Conditioners</td>
<td>Cooling/Heating Capacity, Amperes and Energy Efficiency Ratio (EER)</td>
</tr>
<tr>
<td>Dehumidifiers</td>
<td>Water Removal Capacity and Energy Factor</td>
</tr>
<tr>
<td>Room Air Cleaners</td>
<td>Clean Air Delivery Rate (CADR)</td>
</tr>
</tbody>
</table>

If a unit does not meet the stated performance rating, the manufacturer must re-rate the product or withdraw the product from the market. All manufacturers who distribute goods in the U.S. may participate in the Programs, whether or not they are AHAM members. The programs are financially supported by participant fees and are separate from AHAM dues-funded programs.

i. What is AHAM’s website?
ii. **Is participation in AHAM’s program mandatory or voluntary?**

   It is a voluntary scheme.

iii. **When do I need to meet the scheme?**

   All AHAM member or non-member can join the program from the program implement.

iv. **What products are covered under AHAM’s program?**

   - Room air conditioners
   - Room Air cleaner
   - Dehumidifier

v. **Where can I get my products tested? Are there any special lab accreditations needed?**

   Intertek's Cortland, New York laboratory receives a majority of AHAM’s testing contracts.

vi. **What are the specific testing standards?**

<table>
<thead>
<tr>
<th>Product Type</th>
<th>Testing standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room Air Conditioners</td>
<td>ANSI/AHAM RAC-1</td>
</tr>
<tr>
<td>Dehumidifiers</td>
<td>ANSI/AHAM DH-1</td>
</tr>
<tr>
<td>Room Air Cleaners</td>
<td>ANSI/AHAM AC-1</td>
</tr>
</tbody>
</table>

vii. **How do I apply? How many models must be tested? Price/samples/application documents/lead-time?**

   - The participant can contact AHAM directly and submit an application according to the AHAM Certification Program Procedural Guide on the website (www.AHAM.org).

   - AHAM allows a 5% difference between manufacturer’s results and the testing lab’s results before any revision is made to the claimed efficiency
• The manufacturer must retain Intertek to administer the testing of models and verification of data

• For the first test, witnesses are not allowed

• 50% of each manufacturer’s new models are tested and 10% of carry-over models are tested yearly; however overall 25% of models are tested annually.

• At least one additional unit will be tested for any model whose production during a program year exceeds 20,000 units

• Intertek determines which models are tested and the manufacturer will not be notified in advance as to which models will be tested or when.

• Manufacturing association certification programs are funded through an assessment on each appliance shipped.

viii. Are follow-up inspections or market surveillance required?

• If a manufacturer contests the test results of its own product, it is allowed to witness a test. It is NOT allowed to witness the test results of a competitor’s machine.

• A Product Directory is published twice a year

• If a manufacturer has incorrectly rated a model’s rating, the manufacturer must inform the dealers of the new rating. It must put new labels on the product. Revised ratings are noted in the AHAM Directory.

• Any participant who does not comply with the above points can no longer participate in the certification program. They will not be in the directory or be allowed to have a AHAM certification sticker on the product.

• Test results will be reported to the FTC for labeling and to DOE

ix. Does AHAM list participating products on their website?

All models which have joined the AHAM Certification Program are listed on the website.

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FAQ for Australian Energy Labeling Scheme

i. What is the scheme?

A Regulatory requirement for energy labeling and MEPS.
State regulations for energy labelling and Minimum Energy Performance Standards (MEPS) typically include a range of provisions and requirements. It should be noted that the exact requirements and penalties for any offences should be checked with the relevant state authority: information provided here is only a guide. Currently, energy labelling applications for an approved energy label are accepted by New South Wales, South Australia, Victoria and Queensland (28 June 2007). A registration for energy labelling in any of these states are accepted as valid in all Australian states and territories.

ii. What are their websites?


iii. Is participation in the program mandatory or voluntary?

It is compulsory for manufacturers to put an Energy Rating label on every product.

iv. When did Minimum Energy Performance Standards become law in Australia?

Regulations became effective on 1 October 2004. Any product sold after that date must be registered unless a supplier can prove that they were manufactured or imported prior to this date.

v. What appliances carry the Energy Rating label?

In Australia, most major categories of home appliances are required to carry an energy rating label, including:

- refrigerators;
- freezers;
- dishwashers;
- washing machines;
- clothes dryers; and air conditioners.

vi. What are the test standards and requirements?

Standards for products carrying an energy label or which are regulated for MEPS now generally have two parts:

- "Part 1" covers the test procedure and ambient conditions such as the test method, performance measures and test materials;

- "Part 2" contains the detailed technical requirements for energy labelling and Minimum Energy Performance Standards (MEPS) where applicable.

For some products, the test procedure and the regulatory standards may not be part numbers 1 and 2 as these part numbers may have been allocated for other purposes. References to "Part 1" and "Part 2" refer to the
relevant test procedure and the regulatory standard respectively. Note that most energy efficiency standards are now jointly published by Standards Australia and Standards New Zealand.

An energy labelling and/or Minimum Energy Performance Standards application form, which must be submitted to state regulators, can be found in the Part 2 standard. Such applications are normally required to have a test report to the relevant Part 1 standard for three sample units. These tests reports must be prepared by an acceptable laboratory. However, applications for energy labelling or MEPS are now done electronically.

Australian Standards provide a "one-stop shop" for industry and regulators, addressing not only testing and performance requirements, but also energy labelling and minimum energy performance requirements. The following standards are currently used for energy efficiency regulation in Australia:

- AS/NZS 4474: refrigerator and freezers - [more details]
- AS/NZS 2040: clothes washers - [more details]
- AS/NZS 2442: clothes dryers - [more details]
- AS/NZS 2007: dishwashers - [more details]
- AS/NZS 3823: room air conditioners (single phase) - [more details]
- AS/NZS 3823: packaged air conditioners (three phase) - [more details]
- AS 1056: electric water heaters - [more details] (note that NZ Standards have separate numbers)
- AS/NZS 1359: three phase electric motors - [more details] (note that some of these standards are AS only)
- AS/NZS 4783: fluorescent lamp ballasts - [more details]
- AS/NZS 4782: fluorescent lamps - [more details]
- AS 2374 & AS 2735: distribution transformers - [more details]
- AS 1731: commercial refrigeration - [more details]

Standards Australia have also published the test method for the measurement of standby power AS/NZS 62301-2005 and this is now available for purchase (based on the IEC standard of the same number). This standard will be referenced by some of the above test methods where standby requirements are specified. See the standby page for more details.

"Part 2" of the standard includes data on how to calculate star ratings and the comparative energy consumption (the energy number that appears on the label) for each model, details on the number of units to be tested, minimum performance requirements, application forms, check testing procedures, the design and shape of the energy label and how the label is to be affixed to the appliance (where applicable). Part 2 also contains any requirements for Minimum Energy Performance Standards for the particular appliance or equipment type (where applicable).

vii. What is required for application?

All energy labels must be approved by a regulatory authority. All products within the scope of energy labelling and/or MEPS must be registered. Applications for energy label registration and MEPS compliance are to include:

- test reports or data to the relevant standard (the number of units to be tested varies - see particular requirements by product);
- demonstration that the relevant performance requirements have been met by the model in addition to the measurement of energy consumption;
• a sample label (where applicable);

• the product meets the MEPS requirements (where applicable);

• the prescribed fee.

viii. What's is the “Check Testing” program?

The E₃ Committee conducts a national "check testing" program to provide the community and stakeholders with data on accuracy of the labelling scheme and compliance by suppliers. It is the quality assurance element that ensures that the labelling and MEPS scheme maintains high levels of credibility both with consumers and manufacturers. Appliances are purchased from retail outlets or obtained anonymously and tested in NATA accredited independent laboratories to verify the claims associated with the energy label for six appliance types and minimum energy performance standards where applicable.

E₃ has included a check testing program since 1991. From modest beginnings, the national program now tests as many as 100 products per year. Units are not randomly selected for check testing, rather sophisticated selection criteria and market intelligence are used to target testing towards units more likely to fail. A detailed description of the check testing process (extracted from the Administrative Guidelines) is included here for reference.

As part of the National Greenhouse Strategy, the E₃ Committee allocates around a quarter of its budget (in excess of $300,000 in 2002) to conduct check testing in laboratories and related testing used for standards development and round robins. The E₃ Committee measures compliance on a regular basis and benchmarks against overseas results. The Committee and its program partners are justifiably proud of the program's compliance levels, which are amongst the best in the world. The E₃ Committee and its program partners, however, recognise that we must continue to strive to improve those products that fail. Especially in circumstances where governments are imposing additional costs on all suppliers to meet energy labelling and MEPS, the E₃ Committee is dedicated to promoting products sold by suppliers who comply with the program.

ix. How do I find registered products?
Registered products can be located on our websites:


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FAQ of Eco-label Scheme

i. What is the scheme?

This scheme is to promote the design, production, marketing and use of consumer products and services that have a reduced environmental impact during their entire life-cycle, and to provide consumers with better information on the environmental quality of products and services so they may make informed environmental choices in their purchases.

ii. What is its website?

http://ec.europa.eu/environment/ecolabel/index_en.htm
iii. Is participation in the program mandatory or voluntary?
Eco-label scheme is voluntary.

iv. When can I join the program?
Applications can be made at any time. The manufacturer should have designed the product with the criteria in mind.

v. What products are covered under this scheme?
There are 7 catalogues in Eco-label scope including Cleaning Products, Appliances, Paper Products, Home and garden, Clothing, Tourism & Lubricants.

Appliances include the products below:

- Dishwashers
- Heat pumps (Criteria under development)
- Light bulbs
- Personal computers
- Portable computers
- Refrigerators
- Televisions
- Vacuum cleaners
- Washing machines

vi. Where can testing be completed? Are any special lab accreditation required?
Intertek is an experienced and qualified test lab for many product groups of Eco-labeling in UK. The program requires UKAS or equivalent certification of the laboratory for ISO 17025.

vii. What are the specific testing standards?

- Dishwashers: 2002/689/EC
- Heat pumps (Criteria under development): The criteria are now being translated and will be available for applications for the label shortly.
- Portable computers: 2001/687/EC & 2005/343/EC
- Vacuum cleaners: 2003/121/EC

viii. What are the fees associated with the program?
See the attached flow chart.
Fees include:

a) Application Fee: €300 – €1,300, for applications from SMEs, and in developing countries the fee is reduced by 25% (fixed)

b) Test Fee: this price depends on the working load for each kind of appliance

c) Annual Fee: 0.15% of the annual sales volume of the product. There is a maximum ceiling of €25,000 per product group per applicant. Several fee reductions are possible, including 25% reduction if the company is an SME or from a developing country (fixed)
ix. Are follow up inspections or market surveillance required?
Follow-up inspection is not required.

x. Where can I find products that participate in the program?

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FAQ of Energy Guide Label Scheme in USA

i. What is the scheme?
   Energy Guide Label Scheme
   - The Department of Energy (DOE) for MEPS(Minimum Energy Permission Standard)
   - The Federal Trade Commission (FTC) for labels

ii. What is the program’s website?
   http://www.eere.energy.gov/buildings/appliance_standards/
   http://www.ftc.gov/appliances/

iii. Is the program mandatory or voluntary?
   It is a mandatory scheme.

iv. When did the scheme originate?
   NAECA set the initial levels for 13 residential appliances and set a time table for future updates in

v. What products are eligible for the program?
   Residential Appliances That Have Minimum Efficiency Requirements
   • Refrigerators & freezers
   • Clothes Washers
   • Clothes Dryers (no label)
   • Dishwashers
   • Kitchen ranges & ovens (no label)
   • General service fluorescent
   • Incandescent reflector
   • Central Air Conditioners & heat pumps
   • Room air conditioners
   • Small duct, high velocity air conditioners
   • Furnaces & boilers
   • Water heaters
   • Poolheaters
   • Plumbing products

   Commercial Products that have Minimum Efficiency Requirements
   • Distribution transformers
   • Electric motors
   • Small electric motors
   • Furnaces & boilers
   • Unitary air conditioners & heat pumps
   • Water heaters
   • High intensity discharge lamps
vi. What is the specific testing standard?
10 CFR part 430 Subpart B

vii. Is market surveillance required?
- Manufacturers check their competitors’ products and inform the DOE if they believe their competitors are not in compliance (anyone can report non-compliance to DOE)
- FTC uses the same approach and responds to complaints by anyone reporting non-compliance

What is the typical procedure used in compliance
• The DOE receives a written complaint that a product does not meet the MEPS
• The DOE sends a letter to the manufacturer asking for test data or an explanation
• The DOE may have one product tested by a third party laboratory. Intertek conducts a majority of testing projects for the DOE
• If the product in question doesn't comply, more units are tested per the statistical method outlined in the regulation.
• Penalties of up to $110 for each violation on non-compliance (a violation means for each product sold for each day of non-compliance)

viii. Where can a listing of approved products be found?
- All models which have been reported to FTC are to be listed on FTC website http://www.ftc.gov/bcp/conline/edcams/eande/appliances/

FAQ of Energy Star Scheme in USA
i. What is the scheme (in brief)?
ENERGY STAR is a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy helping to save money and protect the environment through energy efficient products and practices.

ii. Any relevant website?
www.energystar.gov

iii. Is it mandatory or voluntary?
It is a voluntary scheme.

iv. When do I need to meet the scheme?
In 1992 the US Environmental Protection Agency (EPA) introduced ENERGY STAR as a voluntary labeling program designed to identify and promote energy-efficient products to reduce greenhouse gas emissions. Computers and monitors were the first labeled products. Through 1995, the EPA expanded the label to additional office equipment products and residential heating and cooling equipment. In 1996, the EPA partnered with the US Department of Energy for particular product categories. The ENERGY STAR label is now found on major appliances, office equipment, lighting, home electronics, and more. The EPA has also extended the label to cover new homes and commercial and industrial buildings.

v. What products?

Appliances
- Battery Chargers
• Clothes Washers
• Dehumidifiers
• Dishwashers
• Refrigerators & Freezers
• Room AC
• Room Air Cleaners
• Water Coolers

Heating & Cooling

• Air-source Heat Pumps
• Boilers
• Central AC
• Ceiling Fans
• Dehumidifiers
• Furnaces
• Geothermal Heat Pumps
• Home Sealing (Insulation)
• Light Commercial
• Programmable Thermostats
• Room AC
• Ventilating Fans

Home Envelope

• Home Sealing (Insulation and Air Sealing)
• Roof Products
• Windows, Doors, & Skylights

Home Electronics

• Battery Charging Systems
• Cordless Phones
• Combination Units
• Digital-to-Analog Converter Boxes (DTAs)
• DVD Products
• External Power Adapters
• Home Audio
• Televisions
• VCRs
Office Equipment

- Computers
- Copiers and Fax Machines
- Digital Duplicators
- Laptops
- Mailing Machines
- External Power Adapters
- Monitors
- Printers, Scanners, and All-in-Ones

Lighting

- Compact Fluorescent Light Bulbs (CFLs)
- Residential Light Fixtures
- Ceiling Fans
- Exit Signs

Commercial Food Service

- Commercial Fryers
- Commercial Hot Food Holding Cabinets
- Commercial Solid Door Refrigerators & Freezers
- Commercial Steam Cookers

Other Commercial Products

- Battery Charging Systems
- Exit Signs
- External Power Adapters
- Roof Products
- Vending Machines
- Water Coolers

Historical ENERGY STAR specifications referenced in EPACT

- Traffic Signals
- Transformers

New Product Specifications in Development
vi. What are the testing criteria?

**Refrigerators & Freezers Key Product Criteria**

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Volume</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Size Refrigerators</td>
<td>7.75 cubic feet or greater</td>
<td>At least 15% more energy efficient than the minimum federal government standard (NAECA).</td>
</tr>
<tr>
<td>Full Size Freezers</td>
<td>7.75 cubic feet or greater</td>
<td>At least 10% more energy efficient than the minimum federal government standard (NAECA).</td>
</tr>
<tr>
<td>Compact Refrigerators and Freezers</td>
<td>Less than 7.75 cubic feet and 36 inches or less in height</td>
<td>At least 20% more energy efficient than the minimum federal government standard (NAECA).</td>
</tr>
</tbody>
</table>

**Room Air Conditioners**

ENERGY STAR qualified room air conditioners use at least 10 percent less energy than conventional models.

ENERGY STAR qualified room air conditioners often include timers for better temperature control, allowing you to use the minimum amount of energy you need to cool your room.

vii. Where can a listing of approved products be found?

All Energy Star partners will be listed in the [www.energystar.gov](http://www.energystar.gov).

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**FAQ of Europe Energy Labelling**

i. What is the scheme?

Energy consumption of household appliances may influence the public’s buying decisions and prompt manufacturers to take steps to design more efficient products. The scheme will encourage more efficient design of these appliances. On the other hand, the scheme will provide potential purchasers...
with supplementary standardized information on those appliances’ costs in terms of energy and the consumption of other resources.

ii. **Any relevant website?**
http://ec.europa.eu/enterprise/electr_equipment/legislat.htm

iii. **Is it mandatory or voluntary?**
Energy labeling directive is mandatory.

iv. **When do need to meet the scheme?**
The scheme became mandatory on 1 January 1994

v. **What products?**
- Electric ovens
- Air-conditioners
- Lamps
- Dishwashers
- Combined washers-driers
- Electric tumble driers
- Washing machines
- Electric refrigerators, freezers and their combination

vi. **What are the testing standards?**
- Electric ovens: Directive 2002/40/EC; standard EN 50304
  - Lamps: Directive 98/11/EC; standard EN 60969
  - Dishwashers Directive 97/17/EC; standard EN 50242
- Combined washers-driers: Directive 96/60/EC; EN 50229
- Electric tumble driers: Directive 95/13/EC standard EN 61121
- Washing machines standard EN 60456: Directive 95/12/EC standard

vii. **Are follow-up inspections or market surveillance required?**

Follow-up inspection is not needed. But member states may require suppliers to furnish evidence within the technical documentation when they have reason to suspect it is incorrect.
FAQ of HK Energy Labelling Scheme

What is the scheme?

Products with Grading Type and Recognition Type Energy Labels.

The “Grading Type” energy label classifies the energy performance of the following products into five grades. A “grade 1” label is most energy efficient. A “grade 3” label signifies that the product is in the average class in respect of energy efficiency. A “grade 4” or “grade 5” labeled product is below the average in the market. Products include:

- Room coolers
- Refrigerators
- Washing machines
- Electric storage water heaters
- Electric clothes dryers

To qualify for affixing the “Recognition Type” energy label, the following products should meet the minimum energy efficiency and performance requirements specified in the scheme.

- Compact fluorescent lamps
- Photocopiers
- Multifunction devices
- Electric rice-cookers
- Dehumidifiers
- Laser printers
- Television sets
- LCD monitors
- Domestic gas instantaneous water heaters
- Electronic ballasts
- Computers
- Fax machines

What is the scheme’s website?

- [http://www.energystar.gov](http://www.energystar.gov) Energy Star, which is operated by the United States Environmental Protection Agency and the Choose Green Reports issued by Green Seal (available from [http://www.greenseal.org/recommendations.htm#product](http://www.greenseal.org/recommendations.htm#product)), provide information about basic knowledge of the green products, their environmental benefits and usage of to professionals and the general public.

Is it Mandatory or Voluntary?

Legal Provisions for the Voluntary Scheme.

- This scheme is voluntary. However, a participant who abuses the scheme by giving false information on a label may contravene provisions of the Trade Descriptions Ordinance.
- No one could take advantage of the scheme by using the label on his appliances without authorization of the Authority as that may constitute an infringement of copyright under the Copyright Ordinance.

Product Coverage for the mandatory scheme?
The mandatory scheme will cover three specified products (in near future), namely, room air conditioner, refrigerator and compact fluorescent lamp, which are supplied in Hong Kong. The following products will be excluded:

- Product under transshipment or in transit through Hong Kong.
- Products manufactured in Hong Kong for export.
- Products supplied as scrap or in a place other than Hong Kong under a sale agreement entered into in Hong Kong; or

**When do I need to meet the scheme?**

**Legislative Timetable for Mandatory EELS.**

- Publication in the Gazette: 04 April 2007
- First Reading and commencement of Second Reading debate: 18 April 2007
- Resumption of Second Reading debate, Committee Stage and Third Reading: to be notified

(Updated to 29 June 2007)

**What products are affected?**

**Products scope**

EMSD propose to include the following three products in the initial phase of the mandatory EELS:

(a) refrigerating appliances;
(b) room air conditioners; and
(c) compact fluorescent lamps.

The Department selected these products for three reasons. First, the three products together accounted for over 70% of the electricity consumption in the residential sector. Second, the product categories are included in the present voluntary EELS. Third, these products received high levels of participation in the voluntary EELS.

**What is the testing standard?**

EELS have their own testing standards and requirements can be found at:


The testing standards for checking compliance with the safety requirements are based on IEC 60065 "Audio, video and similar electronic apparatus – Safety" requirements or IEC 60950 "Information technology equipment – Safety" requirements. For detailed requirements and procedural descriptions one should refer to the respective standard.

To the extent that definitions in the IEC standards do not conflict with the definitions of this document, the definitions in the aforesaid standards shall be included.

**How do I apply?**

**Registration process and information requirements (use Television Receiver as example).**

Applicant should submit formal application to:

Chief Engineer / Energy Efficiency A
Energy Efficiency Office
Information/Documents required for Registration

Each make and model of an appliance participating in the scheme should be provided with a test report issued by a recognized laboratory. The test report should contain power consumption test and performance test results. The details of the technical information to be submitted together with the application are listed as follows:

- **Company Information**
  - Name, Address, Telephone number, Fax, Contact person, Importer, Distributor, etc.
  - Products to apply for participation in the scheme
- **Names of products, types, brand names, model references, countries of origin**
  - Parties which will be responsible for making and fixing the Energy Label
  - Commencement date to affix energy label on appliance
- **Year _____, Month _______**
  - Documentary proof that the applied appliance(s) comply with IEC 60065, Audio, video and similar electronic apparatus – Safety requirements and/or the Electrical Products (Safety) Regulation of the HKSAR, where applicable
  - Detailed test reports shall provide at least the following relevant technical data for the applied appliance
    - Product Category
    - Standby power rating

Company's name and chop should be stamped on all the documents provided. All photocopy test reports submitted to the Authority shall be certified as true copies by the appropriate organization.

**Are follow-up inspections or market surveillance required?**

**Registration of the product under Mandatory EELS.**

In line with the existing voluntary EELS, suppliers of products covered by the mandatory EELS will be required to register their products with the EMSD prior to supplying them to the local market. Suppliers will be required to submit relevant energy performance information of the products for registration. Details of information to be submitted to EMSD will be set out in codes of practice issued by EMSD. The list of the registered products with energy efficiency information will be made available to the public. Registration holders will be required to update their product information with EMSD at least once every five years. A registration fee will be charged to cover the administration cost of the registration. We are in discussion with the relevant trades and suppliers on the proposal fee level.

**Energy Efficiency Verification Service in Hong Kong**

An increasing number of countries now accept, as proof of product conformance, energy efficiency verification services provided by a third-party organisation that has been accredited as a certification organisation. In accordance with this trend, the Authority will consider test results that have been evaluated and verified against the energy efficiency standards of the scheme by reputable third-party certification organisations.

**Where can a listing of approved products be found??**

i. **What is the scheme?**


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All importers of air conditioners and refrigerators must register their products with NCCC. Labeling is mandatory as of 1st July 2007

ii. What is the scheme's website?
http://www.nccc.gov.sg/energylabel/

iii. Is it mandatory or voluntary?
Mandatory

iv. When do I need to meet the scheme?
1st July 2007

v. What products are affected?
Air conditioners (windows and split type) and All Refrigerators

vi. What is the testing standard?
• ISO15502 (2005) for refrigerators
• ISO5151(1994) for window and non-inverter split air conditioners
• JISC9612(1994) for inverter split air conditioners

vii. How do I apply?
You must submit test reports to NCCC

viii. Are follow-up inspections or market surveillance required?
Market surveillance is required.

ix. Where can a listing of approved products be found?
Approved products will be listed on the website.

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FAQ of Taiwan Green Mark Program
i. What is the Taiwan EPA Green Mark?
The Green mark Program of R.O.C. (Taiwan) was launched in August 1992 by the Environmental Protection Administration (EPA). The program is developed to promote the concept of recycling, pollution reduction, and resource conservation. The objective of awarding the Green Mark is to guide the consumers in product purchasing and to encourage manufacturers to design and supply environmental benign products.

ii. Any relevant website?
http://greenmark.epa.gov.tw

iii. Is it mandatory or voluntary?
Taiwan EPA Green Mark is the voluntary mark.

iv. What products are affected?
There is a total of 99 products in scope 1 that can apply for the Green Mark. Please refer the website:
http://greenmark.epa.gov.tw

v. Where can products be tested?
Intertek Taiwan offers this Green Mark testing service.
vi. **What are the product testing standards?**  
Each product has its own testing standard/requirement. Please check the website: http://greenmark.epa.gov.tw for specific standards.

vii. **How do I apply?**  
Please directly contact Intertek Taiwan office to get the application process and the testing fee. The test requires 1 set of samples and the application document. Please check the EPA Green Mark requirement. The lead time is around 5-8 weeks.

viii. **Are follow-up inspections or market surveillance required?**  
There is no follow-up inspection or market surveillance in Taiwan EPA Green Mark system. However, the Green Mark certificate is available for 2 years. Clients must submit a new testing report for renewal.

ix. **Where can a listing of approved products be found?**  
Listings can be found on the Taiwan EPA Green Mark website.

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FAQ of TCO

i. **What is the TCO?**  
TCO is a voluntary mark for related IT and display equipment. Once a product gets the TCO mark, it means this product fulfill the TCO requirement in:

- Stress from prolonged use the computers
- Quality and accuracy of the display
- Usability and convenience
- Judgment of color accuracy for photo work
- Compliance with the office workers protection directive
- The response time for multimedia

ii. **What is the scheme’s website?**  
[www.tcodevelopment.com](http://www.tcodevelopment.com)

iii. **Is it mandatory or voluntary?**  
TCO is the voluntary mark.

iv. **What products are affected?**  
TCO’03 & TCO’99 for Flat panel displays, TCO’05 for Notebooks and TCO’06 for Multimedia display.

v. **Where can products be tested? Are any lab accreditations needed?**  
Intertek Taiwan and Intertek Shanghai offices have the TCO accreditation and offer the TCO testing service.

vi. **What are the testing standards?**  
For energy saving, the testing standards are as follows:

1. TCO’03 & TCO’99: According to Energy Star program requirement for computer monitor (Version 4.0) and the test pattern is “VESA FPDM standard 2.0, A112-2F, SET01K, A112-2H and L80”.
3. TCO’06: According to Energy Star program requirement for TVs monitors (Version 2.2) and the test pattern is “A full screen of capital “H” pattern in dark/black letters”.

[www.intertek-energy.com](http://www.intertek-energy.com)
vii. **How do I apply?**
Please contact Intertek Taiwan or Intertek Shanghai office directly to begin the application process. The test needs 2 sets of samples and the application document. Please check the TCO requirement. The leadtime is around 4 weeks.

viii. **Are follow-up inspections or market surveillance required?**
There is no follow-up inspection in TCO system but there is market surveillance.

ix. **Where can a listing of approved products be found?**
Listings can be found on the TCO website.

**FAQ of Thailand Energy Efficiency Scheme**

i. **What is the scheme?**
All importers of air conditioners and refrigerators must register their products with TISI. Labeling is mandatory beginning 21st August 2007. For electric fans, electric rice cookers, magnetic ballast and fluorescent lighting, labeling is required.

ii. **What is the scheme’s website?**
http://www.egat.or.th  http://www.tisi.go.th

iii. **Is it mandatory or voluntary?**
It is mandatory for air conditioners, refrigerators and washing machines.

iv. **When need to meet the scheme?**
Washing machines will start 21/08/07. A/C and refrigerator are already mandatory.

v. **What products are affected?**
Air conditioners and All Refrigerators

vi. **What are the testing standards?**
1. TIS 2134-2545 for room air conditioners
2. TIS 2186-2547 for household refrigerator
3. TIS 1462-2458 for washing machine

vii. **Are follow-up inspections or market surveillance required?**
Market surveillance by TISI and EGAT

viii. **Where can a listing of approved products be found?**
The EGAT website