
The Hong Kong Voluntary Energy Efficiency Labelling Scheme for

Domestic Gas Instantaneous Water Heaters November 2021

Energy Efficiency  **EMSD**

Electrical and Mechanical Services Department
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1. Purpose

- 1.1 This set of document is intended to give a general description to the Hong Kong Voluntary Energy Efficiency Labelling Scheme for Domestic Gas Instantaneous Water Heaters (The Scheme).

2. Background

- 2.1 The Energy Efficiency Labelling Scheme (EELS) is an energy conservation initiative that the Government of the Hong Kong Special Administrative Region (HKSAR) has adopted. Under the EELS, some common types of household appliances/ gas appliances and office equipment will incorporate an energy label that serves to inform consumers of the product's energy consumption and efficiency. Consumers should then be able to take those factors into account in making their purchasing decision.
- 2.2 The concept of EELS has been implemented in several forms and in different stages of development in many countries. The EELS generally aims to achieve:
- greater public awareness of energy conservation and environmental improvement needs;
 - provision of readily available, pre-purchase information on energy consumption and efficiency data to enable ordinary consumers to select more energy efficient products;
 - stimulation to the manufactures/market for phasing out less energy efficient models; and
 - motivation of the actual energy savings behaviours and environmental improvements.
- 2.3 Hong Kong aims at achieving the above objectives. At present, the Hong Kong Voluntary Energy Efficiency Labelling Scheme covers 22 types of household appliances/ gas appliances and office equipment. Amongst them, 13 types are household appliances, 7 types are office equipment and 2 types are gas appliances.

3. Scope

3.1 The Scheme will only apply to the manufacturers and importers (i.e. local agents, retailers and the related parties) of domestic gas instantaneous water heaters who are interested to or have participated in the Scheme.

3.2 The Scheme commenced on 23 December 2004. It is further updated on 15 November 2021. The current and newly registered labels under the revamped scheme will remain valid till the commencement of the transitional period of the fourth phase of the Mandatory Energy Efficiency Labelling Scheme (MEELS). By then, renewal of the application may be required subject to the review of the Scheme.

Remarks: The scheme will be under review with respect to the latest international/national standards.

3.3 This Scheme applies to a domestic gas instantaneous water heater, in which it is a product:-

- (a) that is a domestic gas appliances which is designed, or intended to be used primarily in domestic premises; and
- (b) that-
 - (i) burns gas defined in the Gas Safety Ordinance (Cap. 51); and
 - (ii) has a rated heat input not exceeding 70kW.

3.4 The scope of the Scheme covers all new domestic gas instantaneous water heaters which are being sold in Hong Kong, imported to or manufactured in Hong Kong, with effect from the date that is declared by the participants but does not cover the second-hand products, products already in use, under trans-shipment or manufactured for export, etc.

3.5 The Scheme is operated as a 'Grading Type' labelling system. All participating domestic gas instantaneous water heaters will be registered under this Scheme provided that they have met the testing and performance requirements specified in the Scheme.

4. Definitions

Unless otherwise specified, the following definitions shall apply throughout this

document:	
Authority	means the Electrical & Mechanical Services Department (EMSD), the Government of the HKSAR.
Director	means the Director of Electrical & Mechanical Services Department.
domestic gas appliances	means a gas appliance which is designed, or intended to be used primarily in domestic premises, irrespective of whether it is so used (see "regulation 2 of the Gas Safety (Installation and Use) Regulations (Cap. 51C)").
domestic gas instantaneous water heater	means a gas appliance where the heating of water is directly dependent on the draw off. The appliance should have mechanism capable of the opening-closing of the gas passage relating to water supply, and of exclusive use for supplying water to be heated during passing of water through heat exchange.
Gas Authority	means the public officer appointed under section 5 of the Gas Safety Ordinance (Chapter 51)
GB standard	or namely Guobiao standard, mean the Chinese national standard issued by the Standardization Administration of China (SAC).
Government	means the Government of the HKSAR.
inspecting officer	means the officer authorized by the Director to carry out inspection on domestic gas instantaneous water heaters under this Scheme.
label	means the energy label as described in section 8 of this document.
model	means the commercial description of the make, type, and if available and appropriate, variant and version of a domestic gas instantaneous water heater.
participants	means the manufacturers, importers or the retailers of domestic gas instantaneous water heaters participating in the Scheme.
recognized laboratory	means a laboratory that complies with the requirements as stated in section 9 of this document and is acceptable to the Authority for carrying out tests and issuing test reports on domestic gas instantaneous water heaters.

Recognized Certification Authority (RCA)	means an independent organization recognized by the Gas Authority which is empowered under law or decree, (e.g. notified body appointed by the Commission of European Communities), to certify that a gas appliance is designed and produced in compliance with international or national safety standards.
the/this Scheme	means the Hong Kong Voluntary Energy Efficiency Labelling Scheme for Domestic Gas Instantaneous Water Heaters.

5. Test Methodology and Technical Standard

General

- 5.1 All test standards and specifications specified in this document are only related to checking compliance with the energy efficiency and general performance requirements. It is not the intention of this document to spell out the details of the test standards and requirement for checking compliance with the Gas Safety Ordinance (Cap. 51). The participant should conduct appropriate tests, where necessary, in addition to those specified in this document in order to obtain Approval of Domestic Gas Appliances for his domestic gas instantaneous water heaters.

Tests Required to be Carried Out

- 5.2 The tests specified in this clause are required to be carried out in accordance with GB 20665:2015 <<Minimum allowable values of energy efficiency and energy efficiency grades for domestic gas instantaneous water heaters and gas fired heating and hot water combi-boilers>>. A test report shall contain the results of these tests:
- (a) Measurement of heat input (in which values shall be expressed in Gross Calorific Value (GCV)); and
 - (b) Thermal efficiency test (in which values shall be expressed in Net Calorific Value (NCV) in accordance with GB 20665:2015).

Conditions of the Test Gases Used

- 5.3 The conditions of the test gases shall be as follows:
- (a) The composition of reference gases (i.e. town gas and liquefied petroleum

gas (LPG)) is shown in Table 1 and these gases are defined for the testing of Hong Kong gas appliances. Tests are to be carried out with the test gases at nominal test pressure.

Table 1 – Conditions of the Reference Gases and Test Pressures

Reference gases	Composition (% by volume) <i>(for reference only)</i>	Wobbe Index (MJ/m ³) (GCV)	Nominal Test Pressure (kPa)
Town gas	H ₂ :50.5%, CH ₄ : 29.2%, CO ₂ : 17.4%, CO: 1.2%, Air: 1.7%	24.65	1.5
LPG	C ₃ H ₈ : 30%, C ₄ H ₁₀ : 70%	84.17	2.9

- (b) In accordance with GB standards, the Wobbe Index of the test gas actually used shall be within a tolerance of $\pm 2\%$ as compared to the Wobbe Index of the reference gas.

6 Energy Efficiency Requirements

Determination of Thermal Efficiency

- 6.1 Thermal efficiency tests shall be conducted at 100% load and 50% load condition and calculated as below:

$$\eta = \frac{M \times c \times (t_{w2} - t_{w1})}{V \times Q} \times \frac{273 + t_g}{273} \times \frac{101.3}{P_{amb} + P_g - S} \times 100 \dots \dots \text{(eq. 1)}$$

where

- η = Thermal efficiency (%);
 c = Specific heat capacity of water, i.e. $c = 4.19 \times 10^{-3}$ (MJ/(kg · °C));
 M = Flow rate of hot water (kg/min);
 t_{w2} = Temperature of water outlet (°C);
 t_{w1} = Temperature of water inlet (°C);
 Q = Thermal input (NCV) of the test gas (MJ/m³);
 V = Flow rate of the test gas (m³/min);

- t_g = Temperature of gas in the gas flow meter at the time of measurement (°C);
- p_{amb} = Atmospheric pressure during testing (kPa);
- P_g = Gas pressure measured by the gas flow meter during testing (kPa);
- S = Saturated water vapour pressure at t_g (kPa); if a dry gas flow meter is used, s should be adjusted by multiplying the relative humidity of the test gas;

Energy Efficiency Grading

- 6.2 The energy efficiency grading of a domestic gas instantaneous water heater shall be determined as shown in Table 2, with Grade 1 having the best performance and Grade 5 having the worst performance.

Table 2 – Derivation of Energy Efficiency Grades

Thermal Efficiency (%)		Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Measured at 100% load and 50% load: η_1 : Thermal efficiency of higher value η_2 : Thermal efficiency of lower value	η_1	≥ 92	≥ 89	≥ 86	≥ 83	< 83
	η_2	≥ 88	≥ 85	≥ 82	≥ 79	< 79

- When both η_1 and η_2 attain the same grade, the same energy efficiency grading of a gas instantaneous water heater will be assigned correspondingly.
- When η_1 and η_2 attain different grades, the lower energy efficiency grading of a gas instantaneous water heater will be assigned correspondingly.

7 Performance requirements

- 7.1 All test standards and specifications specified in this Scheme are only related to checking compliance with the energy efficiency and general performance requirements of the domestic gas instantaneous water heater.

Energy Performance Requirements

- 7.2 The tests specified in this clause are required to be carried out in accordance with GB 20665:2015 <<Minimum allowable values of energy efficiency and energy efficiency grades for domestic gas instantaneous water heaters and gas fired

heating and hot water combi-boilers>>. The results of the test shall show that the concerned model of the gas instantaneous water heater conforms with the following energy performance requirements:

- (a) The measured heat input shall be neither less than 90% nor greater than 110% of the rated heat input; and
- (b) The thermal efficiency calculated shall meet the requirements as stated in clause 6.2.

Safety Requirements

- 7.3 In addition to the energy efficiency performance requirements, all domestic gas instantaneous water heaters shall comply with relevant legislations including Gas Safety Ordinance, Cap. 51, etc.

Number of Samples to be Tested

- 7.4 For submission of product information of a domestic gas instantaneous water heater model under clause 10.4 of the Scheme, a test report on one sample of the model shall be submitted.

8 Energy Label

- 8.1 The specification of the energy label for domestic gas instantaneous water heater is shown in Annex 1. After a reference number has been assigned to a product model in the name of a specified person and included in the Director's record, the specified person shall produce the energy label for his/her products of the listed model showing the information in strict accordance with the requirements in Annex 1.
- 8.2
 - (a) Subject to clause 8.2(c), the energy label is to be attached or affixed to a prominent position of the domestic gas instantaneous water heater and is to be clearly visible. The participant should ensure that the label appears on every registered domestic gas instantaneous water heater on display, sale or hire.
 - (b) For the avoidance of doubt, if only part of the domestic gas instantaneous water heater is being exhibited, the energy label is to be attached or affixed to a prominent position of that part and is to be clearly visible.
 - (c) The energy label may be attached to the domestic gas instantaneous water heater or its packaging in a manner specified by the Director where the

Director has approved its being so attached.

- 8.3 The energy label shall be of cardboard, if it is to be attached as a swing tag, or be self-adhesive and shall be cut to the outline shown in Annex 1 or otherwise approved by the Director. A trim or die cut margin of up to 2 mm around the energy label is acceptable.
- 8.4 The paper used for the energy label shall be durable with good wear and tear characteristics.
- 8.5 The energy label should be printed in both Chinese and English. Soft copy of the energy label can be obtained from Energy Efficiency Office, Electrical and Mechanical Services Department.

9 Testing Facilities, Laboratories & Accreditation Bodies

- 9.1 The Authority will accept the results and certificates issued by the test laboratory, which fulfills one of the following criteria as specified in clause 9.2 or 9.3.
- 9.2 The laboratory is accredited by the Hong Kong Accreditation Service (HKAS) for the relevant test under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) or a scheme with which HKAS has concluded a mutual recognition agreement (MRA) #, and the results are issued in a test report or certificate bearing the accreditation mark.

HKAS has concluded mutual recognition arrangements with overseas accreditation bodies for testing laboratory accreditation. The list of mutual recognition arrangement partners may change from time to time and the up-to-date list is available from the HKAS website of www.info.gov.hk/itc/hkas. Partners to these arrangements recognise the accreditations granted by one another as equivalent.

- 9.3 The laboratory has been assessed and evaluated by a recognized independent certification body, and is certified by the certification body to be competent for carrying out the relevant test.

Recognized Independent Certificate Body

- 9.4 The recognised independent certification body mentioned in clause 9.3 shall meet the following minimum requirements:
- (a) Being recognized internationally to be competent for certifying product

- energy efficiency performance tests; and
- (b) Having experience in assessing and certifying the relevant energy efficiency performance tests; and
 - (c) Having well established assessment procedures, including staff training and assessment criteria, relating to assessment and certification of energy efficiency performance tests.

10 Registration and Participation

Registration Procedures

10.1 All manufacturers, importers and the other parties involved in the domestic gas instantaneous water heaters distribution network are welcome and encouraged to participate in the Scheme. The Authority will send invitation to those known manufacturers and importers. However, no matter whether invited or not, any interested parties may submit their applications for the registration.

10.2 The proforma letter of invitation is shown in Annex 2.

10.3 Applicant should submit formal application to

*Chief Engineer/Energy Efficiency A
Energy Efficiency Office
Electrical and Mechanical Services Department
3 Kai Shing Street, Kowloon,
Hong Kong*

by means of an application letter through mail, facsimile or electronic mail. In order to ensure effective implementation of the Scheme, the applicant must commit himself to fully comply with the duties, responsibilities and obligations set out in the Scheme. The proforma letter of application as shown in Annex 3 details the aforesaid obligations and should be used for application. To facilitate the application process, the application form can be downloaded from EMSD website or via online application services.

Information/Documents to be Submitted for Registration

10.4 Each make and model of a domestic gas instantaneous water heater participating in the Scheme should be provided with a test report issued by a recognized laboratory. The test report should contain measurement of heat input and performance test results. The details of the technical information to be submitted

together with the application are listed as follows: -

- a) Information on the company
Name, Address, Telephone number, Fax number, E-mail address, Contact person, Importer, Distributor, etc.
- b) Product to apply for participating in the Scheme:
Name of products, types, brand names, models, countries of origin
- c) The parties which will be responsible for making and fixing the Energy Labels;
- d) Commencement date to affix Energy Label on domestic gas instantaneous water heater
Year _____, Month _____
- e) Detailed test reports and relevant photos shall provide at least the following relevant technical and measured data for the domestic gas instantaneous water heater:
 - Product category (e.g. top-flue type, back-flue type, etc.);
 - Rated heat input and measured heat input;
 - Measured thermal efficiency at 100% load and 50% load conditions expressed in % round up to one decimal place;
 - Wobbe Index of the test gas used and expressed in GCV round up to two decimal places; and
 - Test pressure of the test gas applied during testing and expressed in kPa.
- h) Documentary proof that the domestic gas instantaneous water heater complies with the "Gas Safety Ordinance" (Cap. 51).

The above list of information can also be found in Annex 4, Information to be submitted to Energy Efficiency Office.

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

Acceptance of Registration

- 10.6 On receipt of the application, the Authority will process the application and verify

whether the domestic gas instantaneous water heater to be registered falls into the appropriate domestic gas instantaneous water heater category, and meets the energy efficiency and performance requirements based on the submitted data. The accuracy of the energy consumption data, their inconsistencies and non-compliance will be dealt with in accordance with clause 12.2.

- 10.7 If the application is accepted, the participants will be notified of the result in writing within 17 working days upon receipt of all necessary information requested. The participants will then be allowed to affix the label onto the 'registered' domestic gas instantaneous water heaters. Both manufacturer and importer of the registered domestic gas instantaneous water heater should ensure that the energy label is correctly printed and affixed on the domestic gas instantaneous water heater in accordance with section 8. The proforma letter of acceptance is shown in Annex 5.
- 10.8 If the application is rejected, the notification letter will also be issued within 17 working days upon receipt of all necessary information requested. The proforma letter of rejection is shown in Annex 6.
- 10.9 The flow chart for registration is shown in Annex 7

Participant's Duties, Responsibilities and Obligations

- 10.10 The participant is obliged to:-
- a) submit application and information including test results in accordance with format & procedures set out in clauses 10.4 and 10.5;
 - b) conduct tests via recognized laboratories and to comply with the specified test methodology;
 - c) produce and affix labels at his own costs;
 - d) fully inform other sales agents in his distribution network once the particular make and model of a domestic gas instantaneous water heater is registered under the Scheme;
 - e) allow random/ad-hoc inspection to be conducted by persons authorized by the Authority on registered domestic gas instantaneous water heater at his premises;
 - f) conduct re-test(s) at his own costs at some recognized laboratories, if non-compliance is found on his registered domestic gas instantaneous water heater. The result of re-test(s) shall reach the Authority within the prescribed period of time specified by the Authority;

- g) inform the Authority of any change in the technical information and data that were previously submitted to the Authority together with the application letter;
- h) accept the fact that if registered domestic gas instantaneous water heater fails to perform in accordance with the performance requirements as given in section 7 and this cannot be readily rectified, the Authority may order it be de-registered from the Scheme; and
- i) remove all labels from the de-registered domestic gas instantaneous water heaters immediately.

10.11 The details of the registered domestic gas instantaneous water heaters under the Scheme will be kept in a register list maintained by the Authority. The registration records will be regularly uploaded and maintained in the EMSD Internet for public and interested parties for browsing and reference.

Termination

10.12 Under circumstances of poor performance such as –

- (a) (repeated) failure to fulfil the obligations set out under clause 10.10; or
- (b) in any other case where the Director is of the opinion that registration of the particular domestic gas instantaneous water heater is contrary to the public interest,

the Authority may de-register the concerned domestic gas instantaneous water heater from the Scheme with immediate effect by giving the participant a notice in writing. Once the domestic gas instantaneous water heater is de-registered, energy label is not allowed to fix on it.

De-registration may occur even when there is no legal action taken under either the Trade Description Ordinance (Chapter 362) or the Copyright Ordinance (Chapter 528).

10.13 Participant who decides to discontinue participating in the Scheme or to withdraw any registered model from the registered domestic gas instantaneous water heaters list shall give at least three months' advance notice to the Authority.

11 Legal Provisions

11.1 The Scheme is a voluntary scheme. However, a participant who abuses the Scheme by giving false information on an energy label may contravene provisions

of the Trade Description Ordinance (Chapter 362).

- 11.2 No one could take advantage of the Scheme by using the energy label on his domestic gas instantaneous water heaters without authorization of the Authority as that shall constitute an infringement of copyright under the Copyright Ordinance (Chapter 528).

12 Compliance, Monitoring and Inspection

Purpose

- 12.1 To uphold the credibility of the Scheme and to continue maintaining the confidence of the consumers, compliance check on energy labels on those domestic gas instantaneous water heaters participating in the Scheme are needed. Also, to avoid the non-participating parties from taking advantage of the Scheme by using unauthorized labels, suitable form of inspection shall be conducted on those domestic gas instantaneous water heaters which have not been registered under the Scheme.

Scope

- 12.2 The scope of inspection includes sample **checking** and **testing** of the following items:-
- (a) whether the energy label is affixed on the registered domestic gas instantaneous water heater;
 - (b) whether the energy label on the registered domestic gas instantaneous water heater is affixed to a prominent position in accordance with clause 8.2;
 - (c) whether the energy label being displayed is of correct format in accordance with section 8;
 - (d) whether the registered domestic gas instantaneous water heater complies with the energy efficiency and the performance requirements;
 - (e) whether the data submitted by the participants are correct by random re-testing; and
 - (f) whether the unregistered domestic gas instantaneous water heaters display unauthorized energy labels.

Compliance

- 12.3 During compliance monitoring testing, a registered model of domestic gas instantaneous water heater will be accepted as conformance if the test results of a single sample of the registered model meet the following criteria:
- (a) The tested heat input shall be neither less than 90% nor greater than 110% of the rated heat input.
 - (b) The thermal efficiency calculated in the compliance monitoring testing being equal to or better than the requirements of thermal efficiency as stipulated in clause 6.2 for the respective grade determined by the participant.
- 12.4 The participants will be requested to take immediate remedial action and report of follow-up action taken if non-compliance is found on their domestic gas instantaneous water heaters.
- 12.5 For a registered domestic gas instantaneous water heater which is found with energy performance data non-compliance to the performance requirements as stated in section 7, the Authority may request the participant to conduct a separate energy consumption test at his own cost, in accordance with the test methodology as stated in section 5, in one of the testing laboratories agreed by the Authority.
- 12.6 If further testing is to be carried out, three samples of the same model shall be tested at the participant's own costs. A registered model of gas instantaneous water heater will be accepted as conformance if the results of all three samples of further testing meet the following criteria:
- (a) The tested heat inputs shall be neither less than 90% nor greater than 110% of the rated heat input.
 - (b) The thermal efficiency calculated in the compliance monitoring testing being equal to or better than the requirements of thermal efficiency as stipulated in clause 6.2 for the respective grade determined by the participant.
- 12.7 If non-compliance is confirmed and no remedial action is to be taken by the participant, the Authority may order it be de-registered from the Scheme. Failure to remove energy labels from the de-registered domestic gas instantaneous water heaters after the Director has withheld his authorization for using such labels may contravene the relevant ordinances.

Inspecting Officers

- 12.8 The Authority will authorize inspecting officers to carry out compliance monitoring and inspection on domestic gas instantaneous water heaters. The officers will carry proper identification cards which will be produced upon request during their inspection operations. However, the officer will not inform the participants in advance of their intended inspection operation.
- 12.9 It is the participants' obligation to allow the inspecting officers to gain access to their premises to carry out inspection.

Mode of Inspection

- 12.10 Inspections will be carried out on registered domestic gas instantaneous water heaters under the Scheme on random basis. Based on the record of the registration, random inspection programmes will be developed.
- 12.11 In addition to the random inspections, the inspecting officers will carry out ad-hoc inspections in response to complaints. The items to be inspected in such a case will depend upon the nature of complaint and may include all types of inspection as stated in clause 12.2.
- 12.12 Inspections will normally be carried at the domestic gas instantaneous water heaters retail outlets and showrooms. Where necessary, inspection will also be done at warehouses.
- 12.13 The inspection results will be properly recorded for future analysis as well as on evaluation of the effectiveness of the Scheme.

13 Complaints and Appeal

- 13.1 The Authority will be responsible for dealing with the complaints from participant and other parties against matters related to the Scheme.

Complaints Handling Procedures

- 13.2 The Director shall ensure that complaints are properly recorded and handled without undue delay.
- 13.3 The Authority shall carry out preliminary investigation on complaints and reply to the complainants within a reasonable time. For complaints that require site inspection and laboratory test, the complainant shall be notified through an

interim reply.

- 13.4 The Authority shall inform the complainant of the results or decisions made on the complaint.

Appeal Procedures

- 13.5 A participant who feels aggrieved by the decision or action given by the Authority according to section 10 may appeal to the Director in writing stating the reason for the appeal.
- 13.6 The Director may decide to suspend the decision or action given by the Authority from the day on which the appeal is made until such appeal is disposed of, withdrawn or abandoned unless such suspension would, in the opinion of the Director, be contrary to public interest.
- 13.7 The Director may by notice to the appellant require that appellant to attend meeting with him or his representative, provide documents and give evidence relevant to the appeal.
- 13.8 The Director shall notify the appellant of his decision and the reasons for it. The decision will be final and binding.

14 Maintenance of Scheme

- 14.1 To ensure that the Scheme can continue to operate effectively and efficiently after its introduction, a proper system of maintenance is needed.
- 14.2 The maintenance system consists essentially of -
- (a) Continuous updating of the following relevant information of the participants in the Scheme -
 - i. Details of the registered domestic gas instantaneous water heaters such as registration number, date of registration or de-registration if it occurs, energy efficiency index, performance data, make, model and other related information; and
 - ii. Details of the registered importers, manufacturers, local agents, etc.; in the distribution network such as address, date of registration or de-registration if it incurs, etc.

- (b) Periodic review of the test methodology, and procedures for application of registration and compliance monitoring, etc., to bring them in line with the latest needs of the manufacturers, importers and retailers, etc.
- (c) Continuous evaluation of the effectiveness of the Scheme and assessment of what changes are necessary.

15 Future Development

- 15.1 It is hoped that following the implementation of the Scheme, the market will phase out models of low efficiency appliances and public awareness of using energy efficient products will be much improved.
- 15.2 To further facilitate the public in choosing energy efficient appliances and raise public awareness on energy saving, the Government has introduced a mandatory Energy Efficiency Labelling Scheme (EELS) through the Energy Efficiency (Labelling of Products) Ordinance.
- 15.3 Under the mandatory EELS, energy labels are required to be shown on prescribed products for supply in Hong Kong to inform consumers of their energy efficiency performance. Eight types of prescribed products covered in the mandatory EELS are room air conditioners, refrigerating appliances, compact fluorescent lamps, washing machines, dehumidifiers, televisions, storage type electric water heaters and induction cookers.

The Hong Kong Voluntary Energy Efficiency Labelling Scheme for Domestic Gas Instantaneous Water Heaters Energy Label Format

Between 100 mm and 110 mm

Between 150 mm and 160 mm

ENERGY LABEL 能源標籤	
Brand 牌子	ABC 某某牌
Model 型號	HK1234
Thermal Efficiency (Gas)(%) 熱效率(氣體)(%) - at 100% load condition (滿載功率) - at 50% load condition (半載功率)	92 88
Energy Efficiency Grade* 能源效益級別 <small>*Among the five grades, Grade 1 is the most energy efficient. 在五個級別中，第一級為最節能。</small>	1
Rated Heat Input (kW) 額定熱負荷(千瓦)	25
Gas Type 氣體類別	LPG 石油氣
EEL Registration Number 能源標籤登記號碼	GH21-1234
<small>*The data are provided according to the Hong Kong Energy Efficiency Labelling Scheme administered by the Electrical and Mechanical Services Department (EMSD), Government of the Hong Kong Special Administrative Region. The registration record can be found at the EMSD website at www.emsd.gov.hk. 資料根據香港特別行政區政府機電工程署推行的香港能源效益標籤計劃的規定列出。有關註冊記錄可查閱網址 www.emsd.gov.hk。</small>	
機電工程署 EMSD 	

(Not to Scale)

Note : The figure of the energy label is shown not to scale.

Soft copy of this label can be obtained from Energy Efficiency Office, Electrical and Mechanical Services Department.

Proforma Letter of Invitation

Our ref. () EMSD/EEO/LB/26

Your ref.

Tel.

Fax.

Date

[Name and Address of
Manufacturers/Importers/Agents]

Dear Sir/Madam,

Invitation of Application for Registration in The Hong Kong Voluntary Energy Efficiency Labelling Scheme for Domestic Gas Instantaneous Water Heaters

Having gone through the necessary consultations and duly considered the views from various concerned parties, the government has decided to introduce a voluntary energy efficiency labelling scheme for domestic gas instantaneous water heaters to Hong Kong with effect from (_____). The details of the Scheme^① have been finalized and I enclose herewith a guide of the Scheme for your reference.

Being one of the major domestic gas instantaneous water heaters' manufacturers / importers / agents^② in Hong Kong, you are invited to participate in the Scheme so as to take part in promoting public awareness in energy conservation and environmental improvement to Hong Kong. If you are interested to participate in the scheme, please apply in accordance with the proforma letter of application (Annex 3) and submit details including technical information in accordance with the attached Annex 4 to the 'Chief Engineer / Energy Efficiency A' at the following address.

Energy Efficiency Office
Electrical and Mechanical Services Department
3 Kai Shing Street, Kowloon, Hong Kong

Please be reminded to submit accurate test data to support your application. Under this Scheme, routine compliance monitoring and checking will be performed and if a registered domestic gas instantaneous water heater is found to be non-compliant, we may consider deregistering the domestic gas instantaneous water heater from the Scheme.

Should you need further clarification or information, you are most welcome to contact the undersigned or Mr _____, at the telephone number _____.

Yours faithfully,

for Director of Electrical & Mechanical Services

(Note : ^① 'Scheme' means 'The Voluntary Energy Efficiency Labelling Scheme for Domestic Gas Instantaneous Water Heaters '
^② delete as appropriate)

Proforma Letter of Application

Your ref. () EMSD/EEO/LB/26

Our ref.

Tel.

Fax.

Date

Chief Engineer/Energy Efficiency A
Electrical & Mechanical Services Department
3 Kai Shing Street, Kowloon
Hong Kong

Dear Sir/Madam,

Application for Registration in The Hong Kong Voluntary Energy Efficiency Labelling Scheme for Domestic Gas Instantaneous Water Heaters

Our company is the (manufacturer/importer/agent*) of _____ in Hong Kong. We support the introduction the labelling scheme to Hong Kong and would like to be one of the participants in the Scheme to promote energy efficiency.

I understand fully the obligations and duties stated in the Scheme and will comply with all relevant requirements, in particular those specified below:

- i) conduct tests via recognized laboratories and to comply with the specified test standards;
- ii) produce and affix specified labels at my own costs;
- iii) allow random/ad-hoc inspection to be conducted by persons authorized by the issuing Authority on registered domestic gas instantaneous water heater(s) at my premises;
- iv) conduct re-test(s) at my own costs at some recognized laboratories, if the results of inspection suggest inaccurate energy label information being displayed. The result of re-test(s) shall reach the Authority within the prescribed period time specified by the Authority;
- v) inform the Authority of any change in the technical information and data that were previously submitted to the Authority together with the application letter; and
- vi) accept the fact that if the domestic gas instantaneous water heater fails to perform in accordance with the performance requirement as given in section 7 and this cannot be readily rectified, the Authority may order it be de-registered from the Scheme.

The details of information of the domestic gas instantaneous water heater(s) which we intend to register with the Authority are shown in the attached document (Annex 4), and are submitted herewith for your vetting.

Yours faithfully,

(Manufacturer/Importer/Agent's Name and Company Chop)

* *delete as appropriate*

Information to be submitted to Energy Efficiency Office

1. Information on the Company:
Name, Address, Telephone number, Fax number, Email address, Contact person, Importer, Distributor, etc.
2. Product to apply for participating in the Scheme:
Name of products, types, brands, model references, countries of origin
3. The party which will be responsible for making and fixing the Energy Label.
4. Commencement date to affix Energy Labels on domestic gas instantaneous water heater package
Year _____, Month _____
5. Detailed test reports shall provide at least the relevant technical data of energy efficiency for the domestic gas instantaneous water heater and the calculation of the Energy Efficiency Index.
 - Product category (e.g. top-flue type, back-flue type, etc.);
 - Rated heat input and measured heat input;
 - Measured thermal efficiency at 100% load and 50% load conditions expressed in % round up to one decimal place;
 - Wobbe Index of the test gas used and expressed in GCV round up to two decimal places; and
 - Test pressure of the test gas applied during testing and expressed in kPa.
6. Certificate of Safety Compliance prescribed by the "Gas Safety (Installation and Use) Regulation of the Hong Kong Special Administrative Region" (Cap. 51C) for the concerned domestic gas instantaneous water heater(s) in the application.

Note : Company's name and chop should be stamped on the all documents provided.

All test reports submitted to the office should be certified true copy by appropriate organization.

Proforma Letter of Acceptance

Your ref.

Our ref. () EMSD/EEO/LB/26

Tel:

Fax:

Date

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Name and Address of
Manufacturers/Importers/Agents

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Dear Sir/Madam,

**Acceptance of Application for Registration in
The Hong Kong Voluntary Energy Efficiency Labelling Scheme for
Domestic Gas Instantaneous Water Heaters**

With reference to your letter of ref. _____ dated _____, we are pleased to inform you that your application to participate in the captioned scheme has been accepted.

We enclose herewith the registration certificates of domestic gas instantaneous water heater(s) registered. The registered domestic gas instantaneous water heater(s) are as follows:

<u>Brand/Make/Model</u>	<u>Registration No.</u>	<u>Effective date</u>
(_____)	(_____)	(_____)

You are allowed to affix a specified energy label onto each and every domestic gas instantaneous water heater package registered under the Scheme. The contents of the energy label should be based on the information that you have provided in your application ref. _____ and dated _____.

Should you have any queries regarding the scheme, please contact this office.

Yours faithfully,

for Director of Electrical & Mechanical Services

Proforma Letter of Rejection

Our ref. () EMSD/EEO/LB/26

Your ref.

Tel.

Fax.

Date

「

Name and Address of
Manufacturers/Importers/Agents

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Dear Sir/Madam,

Rejection of Application for Registration in The Hong Kong Voluntary Energy Efficiency Labelling Scheme for Domestic Gas Instantaneous Water Heaters

With reference to your letter of ref. _____ dated _____,
we regret to inform you that your application for registration in the Scheme has not been
accepted for the following reasons:-

1. _____,
2. _____, etc.

You are most welcome to submit new application again in future, when you have
the necessary documents / information to support your application.

Yours faithfully,

for Director of Electrical & Mechanical Services

**The Hong Kong Voluntary Energy Efficiency Labelling Scheme
for Domestic Gas Instantaneous Water Heaters –
Flow Chart of Registration**

