

**For discussion on  
19 July 2021**

**Legislative Council Panel on Environmental Affairs**  
**Phase IV of Mandatory Energy Efficiency Labelling Scheme**

This paper reports to the Panel the outcome of the public consultation on the proposed products for Phase IV of the Mandatory Energy Efficiency Labelling Scheme (“MEELS”) conducted by the Electrical and Mechanical Services Department (“EMSD”) from March to May 2021, and seeks the Panel’s support to carry out legislative amendments to implement Phase IV.

**Background**

2. The 2020 Policy Address stated that Hong Kong would strive to achieve carbon neutrality before 2050. To this end, the Government will update “Hong Kong’s Climate Action Plan” in 2021 to set out more proactive strategies and measures to reduce carbon emissions. We have progressively implemented the “Energy Saving Plan for Hong Kong’s Built Environment 2015~2025+”, the measures of which include the continued implementation of MEELS. The effectiveness of mandatory labelling schemes have been well recognised internationally. Over 40 economies, including the Mainland, the European Union (“EU”), the United States, Canada, Australia, New Zealand, South Korea and Singapore, have implemented similar mandatory schemes. These schemes encourage the public to choose more energy efficient appliances, hence saving energy and reducing the emissions of greenhouse gases.

3. Since the enactment of the Energy Efficiency (Labelling of Products) Ordinance (Cap. 598) (the “Ordinance”) in May 2008, the Government has implemented MEELS by phases. Under the Ordinance, energy labels are required to be shown on all prescribed products for supply in Hong Kong to inform consumers of their energy efficiency performance. MEELS is now in its third phase, which regulates a total of eight types of household electrical appliances (namely room air conditioners, refrigerating appliances, compact fluorescent lamps (“CFLs”), washing machines (with rated washing capacity not exceeding 10 kg), dehumidifiers, televisions, storage type electric water heaters, and induction cookers), which account for about 70% of the annual residential electricity consumption in Hong Kong. Separately, the grading standards of MEELS are kept under regular review to ensure that they

keep in pace with technological advancements and other developments. Details are set out at Annex 1.

#### **Phase IV of MEELS**

4. Currently, the products under MEELS are all electrical appliances. With a view to achieving further potential energy saving, we propose to take forward Phase IV of MEELS, expanding the coverage to include gas cookers, gas instantaneous water heaters and light emitting diode (“LED”) lamps. Together with the existing eight types of prescribed products in the first three phases, the total coverage of energy consumption in the residential sector<sup>1</sup> by MEELS will increase from 49% to 80%.

5. LED lamps are covered in the mandatory labelling schemes in other economies, such as the Mainland, the EU and Singapore. International test standards and local accredited testing laboratories<sup>2</sup> are available for testing the energy performance of LED lamps. Besides, gas cookers are covered in the mandatory labelling schemes of the Mainland and Taiwan, while gas instantaneous water heaters are covered in the mandatory labelling schemes of the Mainland, Taiwan, the EU and South Korea. In the schemes of the above-mentioned economies, gas appliances are tested in accordance with their local test standards.

6. It is estimated that the inclusion of the three proposed products in Phase IV of MEELS would bring an annual energy saving of about 568.8 terajoules, which is equivalent to the reduction of 75 350 tonnes of carbon dioxide emissions per year. Compared with the first three phases of MEELS and the two grading standards upgrading exercises, the implementation of Phase IV would bring an additional energy saving and reduction of carbon dioxide emissions by around 17%.

#### **Public Consultation**

7. In the fourth quarter of 2019, EMSD set up two task forces, comprising representatives from the relevant trade associations, the Consumer

---

<sup>1</sup> It covers different forms of energy including electricity, town gas and liquefied petroleum gas.

<sup>2</sup> The testing laboratories include those that are either accredited under the Hong Kong Laboratory Accreditation Scheme (“HOKLAS”), or under an accreditation scheme operated by a laboratory accreditation body in other economies with which HOKLAS has concluded a mutual recognition arrangement.

Council and major importers, to, amongst other things, consult the trade and major stakeholders on the proposed electrical and gas appliances to be included in Phase IV of MEELS. The Energy Efficiency and Conservation and Renewable Energy Sub-committee under the Energy Advisory Committee was consulted in February 2021, and the Sub-committee was supportive of the proposal.

8. EMSD subsequently conducted a public consultation on the proposed products for Phase IV of MEELS from March to May 2021. During the consultation, a total of 58 written submissions were received which in general supported the inclusion of the three additional types of products in Phase IV. The views received will be suitably incorporated in the legislative proposal.

### **Legislative Amendments**

9. To implement Phase IV of MEELS, we plan to, as per the Ordinance, amend its Schedule 1 to include the three above-mentioned products in MEELS, followed by amendments to Schedule 2 of the Ordinance to include details of the products as well as the specifications and content of the energy labels. The format of the energy labels will be similar to that of the existing prescribed products. The label samples are at Annex 2.

10. Similar to the current practice under MEELS, importers and local manufacturers are required to submit the product information, including test reports, to EMSD for assignment of reference number and record; and to label these products in the prescribed formats before supplying them to the local market. Retailers shall supply prescribed products with energy labels that conform with the prescribed specifications.

11. To provide guidance on the grading standards of the new products, the Code of Practice on Energy Labelling of Products (“CoP”) issued under the Ordinance will be revised to incorporate technical details of the new products. The revision of CoP does not involve legislative amendments.

### **Transitional Arrangements**

12. Given the expansion of product coverage of MEELS, a transitional period of 15 to 18 months for Phase IV is proposed to facilitate the trade to make necessary preparations. This is similar to the arrangement for the first three phases.

13. In line with the arrangement of the first three phases, we suggest exempting the following products from the scheme:

- (a) gas cookers and gas instantaneous water heaters which have been manufactured in or imported to Hong Kong before the commencement date of Phase IV<sup>3</sup>; and
- (b) products which are to be supplied as part of or in connection with the disposition of any newly developed premises and of which a procurement contract has been entered into before the commencement date of Phase IV.

14. Apart from the exempted products, all new prescribed products imported to and supplied in Hong Kong on or after the commencement of Phase IV of MEELS are covered under the Ordinance, and shall bear the energy labels after the transitional period. To avoid confusion to the public, the energy label of the Voluntary Energy Efficiency Labelling Scheme should be removed from the product as soon as possible if the product model is registered under MEELS.

### **Advice Sought**

15. Members are invited to offer comments on the proposal set out in the paper. Subject to the Panel's support, we will proceed with work on the legislative amendments with a view to introducing them to the Legislative Council in the 2022-23 legislative session. We will also work closely with the trade on the implementation details, including revisions of CoP and the transitional arrangements.

**Environment Bureau  
Electrical and Mechanical Services Department  
July 2021**

---

<sup>3</sup> As LED lamps do not have serial numbers, it is difficult to trace the dates of production and import for each product. Therefore, it may be impracticable to impose a similar exemption for LED lamps. We will work out the details in consultation with stakeholders in drawing up the legislative amendments.

## **Mandatory Energy Efficiency Labelling Scheme**

### **Overview**

The Mandatory Energy Efficiency Labelling Scheme (“MEELS”) has been implemented in Hong Kong by phases since November 2009. Currently, MEELS regulates eight types of household electrical appliances, which account for about 70% of the annual residential electricity consumption in Hong Kong in 2018 according to the “Hong Kong Energy End-use Data 2020”.

2. The first three phases of MEELS and the first review of the grading standards have together brought an estimated annual electricity saving of about 625 million kilowatt-hour and an estimated reduction in carbon dioxide emissions of about 440 000 tonnes per year. As at the end of 2020, over 5 000 product models available in the market were listed under MEELS. Currently, about 60% of the total available listed models are of Grade 1. This percentage has been steadily increasing since the launch of MEELS.

3. Similar to most of the mandatory labelling schemes in other economies, the manufacturers or importers of the prescribed products under MEELS are required to arrange tests conducted in accredited testing laboratories. The laboratories include those that are either accredited under the Hong Kong Laboratory Accreditation Scheme (“HOKLAS”), or under an accreditation scheme operated by a laboratory accreditation body in other economies with which HOKLAS has concluded a mutual recognition arrangement. The tests must be carried out in accordance with the Code of Practice on Energy Labelling of Products (“CoP”) issued by the Director of Electrical and Mechanical Services (“DEMS”) under the Energy Efficiency (Labelling of Products) Ordinance (Cap. 598) (the “Ordinance”).

4. If DEMS is satisfied with the information submitted including the test results, he will notify the manufacturers or importers of the reference number assigned to the product model concerned. Manufacturers or importers are required to attach energy labels in the prescribed format specified in the Ordinance before supplying these products in Hong Kong. All local suppliers (including wholesalers and retailers) cannot supply any prescribed product which has not been assigned a reference number and does not bear the energy label.

5. CoP provides practical guidance and technical details on the energy efficiency labelling for the prescribed products. It specifies the relevant test standards, calculation methods and determination of energy efficiency grading levels of the prescribed products. The energy efficiency performance of the product models are tested and assessed in accordance with the aforementioned.

6. The Electrical and Mechanical Services Department (“EMSD”) regularly and randomly inspects samples of listed models for compliance monitoring testing on energy performance by independent accredited laboratories to check whether the products conform with the energy efficiency information submitted to EMSD. If a listed model is found not conforming with the information submitted to EMSD, its reference number will be removed from the record of listed models and the model will not be allowed to be supplied in Hong Kong.

### **Promotion**

7. The Government has been carrying out various publicity activities to promote MEELS to the trade and the public. Measures include the launch of a thematic website “Energy Label Net”<sup>4</sup> which provides information on the scheme and its latest developments, distribution of promotion posters and leaflets (with energy saving tips), announcements in TV and radio, issue of notification letters to suppliers, promotional visits for retailers, seminars for the trade, school outreach programmes, advertisements on buses, etc. We will continue to promote MEELS with a view to enhancing public awareness of energy efficiency and facilitating compliance with the relevant regulatory requirements by the trade. Furthermore, EMSD has launched a mobile application named “E&M Connect”, which includes a function called “Energy Saver”. By scanning the energy label using a mobile phone, users can obtain the label information and compare the energy performance of different product models, thereby facilitating the procurement of more energy efficient appliances.

### **Review of Grading Standards**

8. To further encourage suppliers to provide more energy efficient products for consumers, the grading standards of the relevant prescribed products have been tightened twice since the implementation of MEELS. In

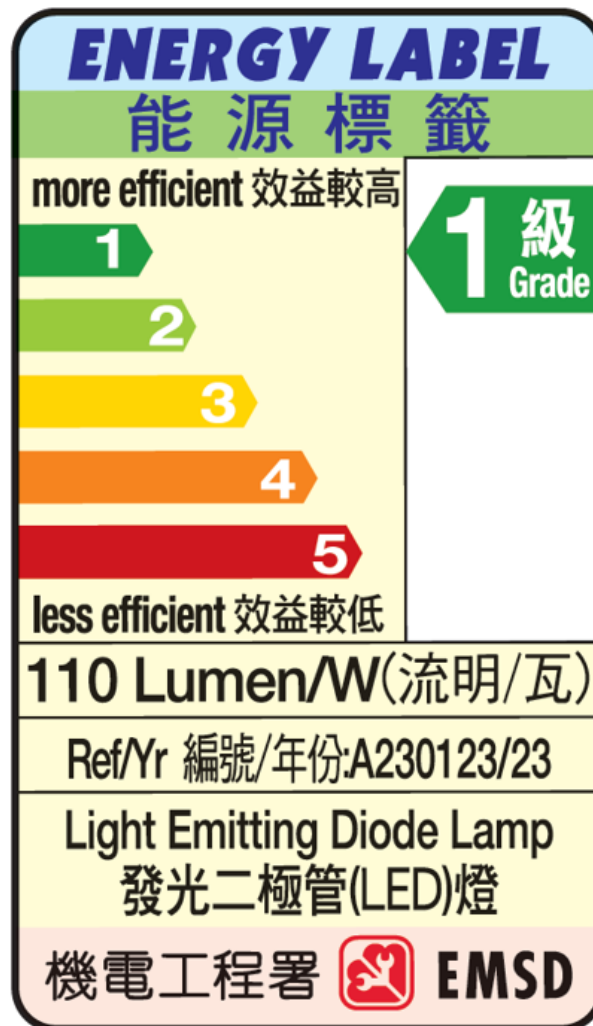
---

<sup>4</sup> Details are available at the website at <https://www.emsd.gov.hk/energylabel/en/about/background2.html>. Publicity materials are also available for downloading.

reviewing the grading standards, due regard has been given to factors such as the existing distribution of the appliances among various grades; grading systems adopted overseas; development of testing standards; potential energy saving arising from further tightening of the grading standards; and views of stakeholders.

9. The first review covered room air conditioners, refrigerating appliances and washing machines, and the revised grading standards were fully implemented in November 2015. Regarding the second review of grading standards, a three-month trade consultation was conducted in the end of 2019 while a task force (chaired by EMSD representative and comprising representatives of relevant trade associations and the Consumer Council) was set up to consider the implementation of the new energy efficiency grading standards of three products (namely single package type room air conditioners, dehumidifiers and compact fluorescent lamps (“CFLs”)). With the agreement of the task force, EMSD promulgated the tightened energy efficiency grading standards of these products through the issue of a revised CoP, which took effect on 31 December 2020. Full implementation will take place on 31 December 2021, after which the three prescribed products to be supplied to the market must bear energy labels under the new energy efficiency grading standards.

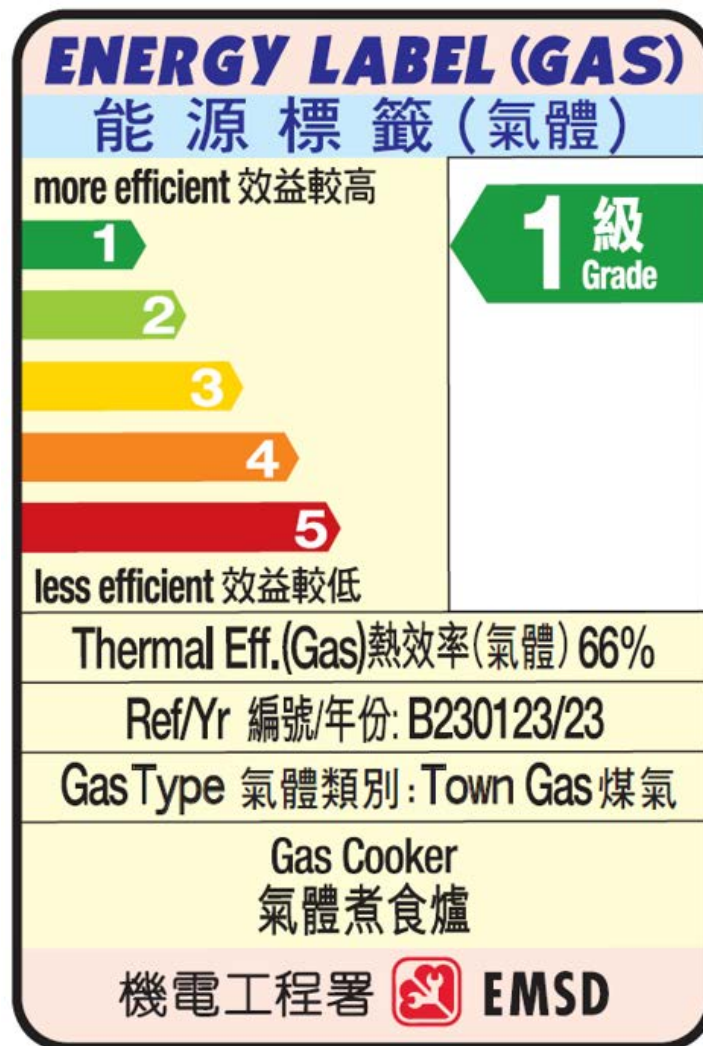
**Illustration of Energy Labels for the Proposed Prescribed Products**



Proposed Energy Label for Light Emitting Diode Lamp

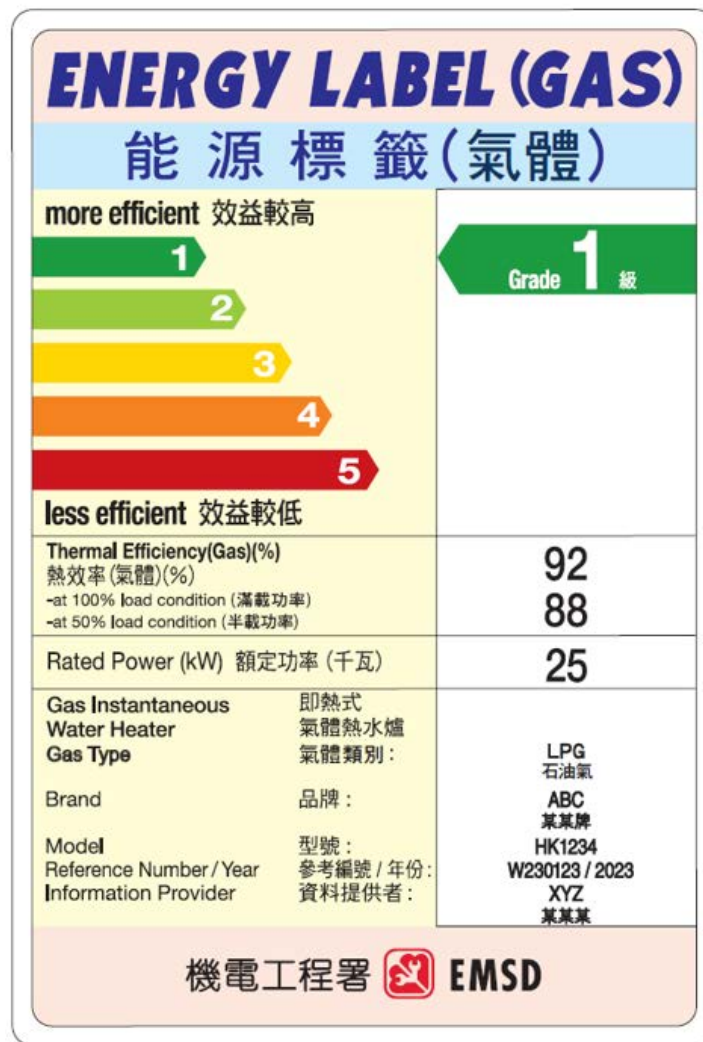


## Illustration of Energy Labels for the Proposed Prescribed Products



Proposed Energy Label for Gas Cooker

## Illustration of Energy Labels for the Proposed Prescribed Products



Proposed Energy Label for Gas Instantaneous Water Heater

Note: The above labels for the three proposed prescribed products are for illustration only. Details of the information to be included in the product label as well as the specifications of the energy label are subject to the discussion with the trade.