



MEDIA RELEASE

ENERGY EFFICIENCY REQUIREMENTS FOR HOUSEHOLD WATER HEATERS AND COMMERCIAL STORAGE REFRIGERATORS FROM 2025

Adoption of energy efficient models help to save on energy bills and contribute to Singapore's net-zero target

4 March 2024 – The National Environment Agency (NEA) will extend the Mandatory Energy Labelling Scheme (MELS) and Minimum Energy Performance Standards (MEPS) to household water heaters and commercial storage refrigerators from 1 April 2025. These labelling and minimum standards will enable consumers and businesses to choose more energy efficient models, save on energy bills and contribute to Singapore's decarbonisation efforts.

5-tick rating scale for household water heaters

2 Water heaters are the third most energy-intensive appliances used in households, after air-conditioners and refrigerators, making up about 10 per cent of a typical household's energy consumption. NEA will develop minimum energy standards to phase out the least energy-efficient water heaters and introduce an energy label with a 5-tick rating scale for water heaters. The regulations will cover all types of water heaters commonly used in residential households, namely storage water heaters, instantaneous water heaters and heat pump water heaters. From 1 April 2025, households can identify the efficient models more easily with the Energy Label. Consumers can save up to \$115 a year by switching from a 1-tick water heater to a 5-tick water heater ¹.

Minimum Energy Performance Standard and Energy Label for commercial storage refrigerators

3 Commercial storage refrigerators are essential equipment in food establishments and are one of the most energy intensive appliances used in the kitchen. NEA will set minimum energy performance standards to phase out inefficient commercial storage refrigerators, and introduce an energy label with a 5-tick rating scale to help businesses identify the efficient models more easily. This will help end-users improve energy efficiency, reduce lifecycle costs, and encourage suppliers to bring in more energy efficient models as technology improves. While energy efficient commercial storage refrigerators can be more costly upfront, the higher upfront cost can generally be recovered within the first 1 to 2 years from energy savings. Businesses can save as much as \$470 per year by changing from a 1-tick rated commercial storage refrigerator to one rated 5 ticks².

Energy Label and Standards improve energy efficiency

¹ Based on electricity tariff of \$0.27/kWh

² Based on electricity tariff of \$0.27/kWh

4 NEA put the MELS in place in 2008 and introduced the MEPS in 2011 as part of its continual efforts to improve the energy efficiency of home appliances and commercial equipment. Since the introduction of these schemes, the average energy efficiency of energy intensive equipment like household air-conditioners and refrigerators have improved by 59 per cent and 42 per cent respectively.

- End -

For media queries, please contact:

Guenevere Cordeiro (Ms)

Executive Manager, Strategic and Media Communications
National Environment Agency
Tel: 9798 3094
Email: Guenevere_magdeline_cordeiro@nea.gov.sg

Elly Saad (MS)

Manager, Corporate Communications
National Environment Agency
Tel: 9066 4418
Email: Elly_Saad@nea.gov.sg

About the National Environment Agency

The National Environment Agency (NEA) is the leading public organisation responsible for ensuring a clean and sustainable environment for Singapore. Its key roles are to improve and sustain a clean environment, promote sustainability and resource efficiency, maintain high public health standards, provide timely and reliable meteorological information, and encourage a vibrant hawker culture. NEA works closely with its partners and the community to develop and spearhead environmental and public health initiatives and programmes. It is committed to motivating every individual to care for the environment as a way of life, in order to build a liveable and sustainable Singapore for present and future generations.

For more information, visit www.nea.gov.sg

Connect with us on [Facebook](#) | [Instagram](#) | [LinkedIn](#) | [WhatsApp](#) | [Telegram](#) | [Twitter](#) | [Threads](#) | [Lemon8](#) | [Youtube](#) | [TikTok](#)

Introduction of Mandatory Energy Labelling Scheme (MELS) and Minimum Energy Performance Standards (MEPS) for water heaters

The energy efficiency of all applicable water heaters will be determined by the Uniform Energy Factor (UEF) as defined under Singapore Standard 646. The water heater types will be rated on a 5-tick rating scale and the MEPS level for these water heater types will be set at the 1-tick level.

| Tick | Energy Efficiency Ratings/MEPS | UEF Range |
|---------------|--------------------------------|---------------------------------|
| 5 Tick | Excellent | UEF > 1 |
| 4 Tick | Very Good | $0.85 < \text{UEF} \leq 1$ |
| 3 Tick | Good | $0.7 < \text{UEF} \leq 0.85$ |
| 2 Tick | Fair | $0.55 < \text{UEF} \leq 0.7$ |
| 1 Tick | Low | $0.4 \leq \text{UEF} \leq 0.55$ |
| MEPS | | UEF > 0.4 |

Introduction of MELS and MEPS for commercial storage refrigerators (CSR)

The energy efficiency of all applicable commercial storage refrigerators will be determined by the Energy Efficiency Index (EEI) and to be tested according to ISO 22041. Commercial storage refrigerators will be rated on a 5-tick rating scale and the MEPS level for commercial storage refrigerators will be set at the 1-tick level.

| Tick rating | Energy Efficiency Ratings/ MEPS | EEI Range |
|---------------|---------------------------------|------------------------------|
| 5 Tick | Excellent | EEI < 20 |
| 4 Tick | Very Good | $20 \leq \text{EEI} < 40$ |
| 3 Tick | Good | $40 \leq \text{EEI} < 60$ |
| 2 Tick | Fair | $60 \leq \text{EEI} < 80$ |
| 1 Tick | Low | $80 \leq \text{EEI} \leq 95$ |
| MEPS | | EEI < 95 |

where EEI is defined as $(\text{AEC}/\text{SAEC}) \times 100$

AEC = annual energy consumption of the cabinet in kWh/year

SAEC = standard annual energy consumption of the cabinet in kWh/year