



ENERGY COMMISSION

Securing Ghana's Energy Future Today

Overview MEPS and Labels in Ghana: experiences from appliance energy efficiency policy design and implementation

African Training Week (2022)

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Energy Commission-Ghana



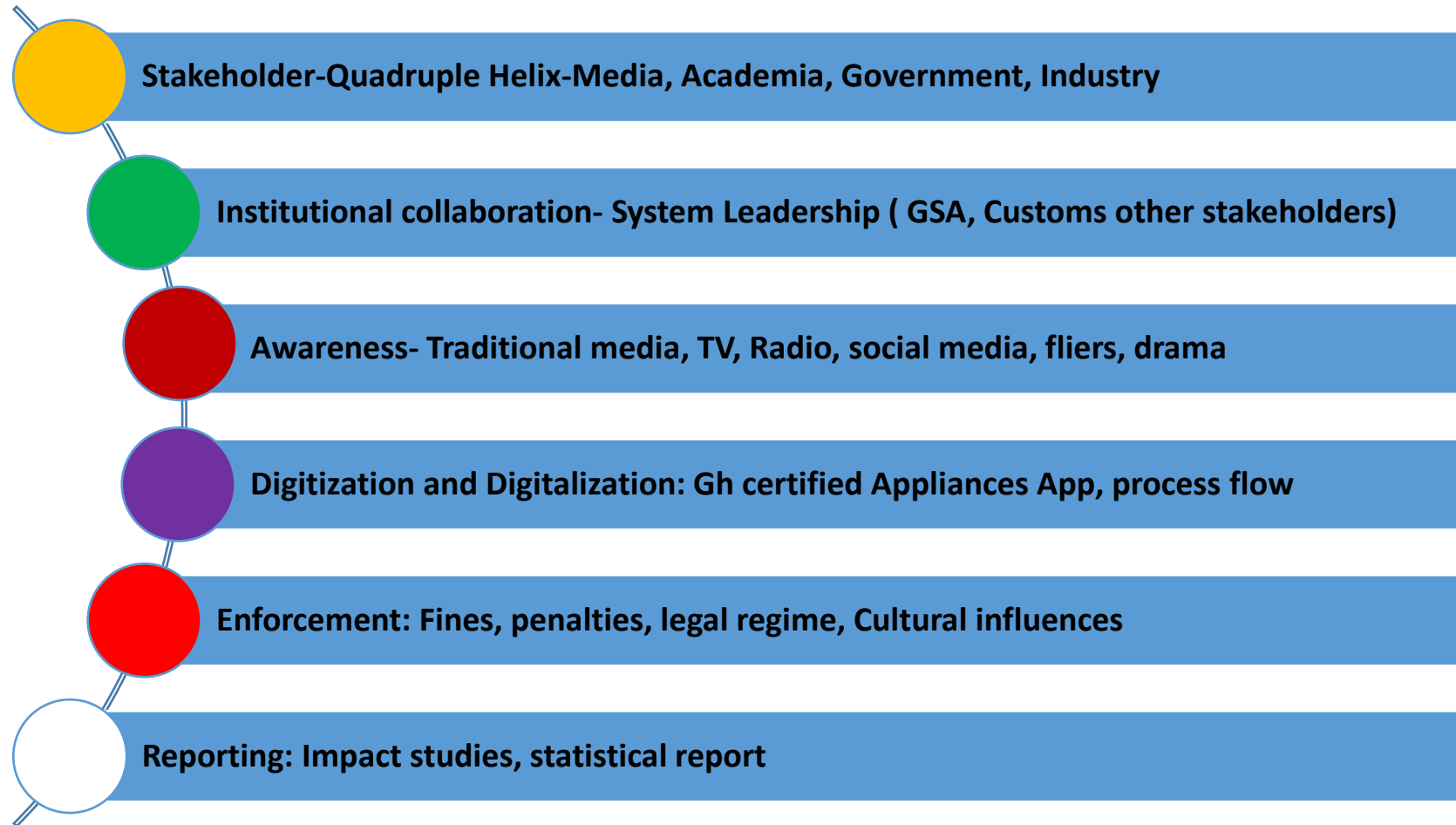
OUTLINE OF PROGRAM

- **Introduction**
- **Policy packages**
- **MRV&E**
- **Digitalization and Digitization**
- **Challenges**
- **Way forward**

Background of Ghana's EE Drive

- **Ghana has experienced several periods of power shortfalls: 1984, 1994, 1998 and 2007**
- **Domestic electricity demand grew at 7% p.a. whereas generation is lagging. 2010 growth was 10.2% over 2009**
- **A significant proportion of total electricity generated goes waste as a result of the use of inefficient appliances.**
- **Ghana is under obligation to phase out ODS.**
- **The most efficient tool for energy efficiency in an imperfect market is the adoption of Standards and Labelling Programme**
- **There are many successful cases of Appliance Standards and labels programmes worldwide**

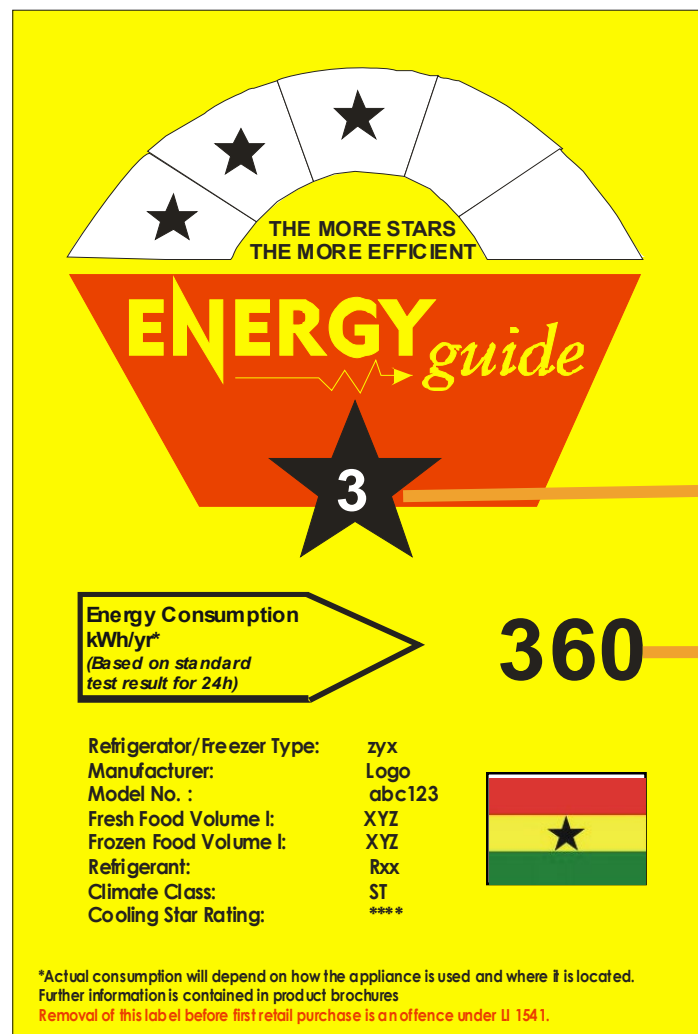
Ideal policy packages for improving EE?



Enactment of Laws to make S&L Legally enforceable

- **Energy Efficiency Standards and Labelling (Non-Ducted Air-conditioners and Self-Ballasted Fluorescent Lamps) Regulations, 2005 (LI 1815)**
- **Energy Efficiency (Prohibition of Manufacture, Sale or Importation of Incandescent Filament Lamp, Used Refrigerator, Used Refrigerator-Freezer, Used Freezer and Used Air-conditioner) Regulations, 2008 (LI 1932)**
- **Energy Efficiency Standards and Labelling (Household Refrigerating Appliances) Regulations, 2009(LI 1958) and LI 1970**

Key features on the label

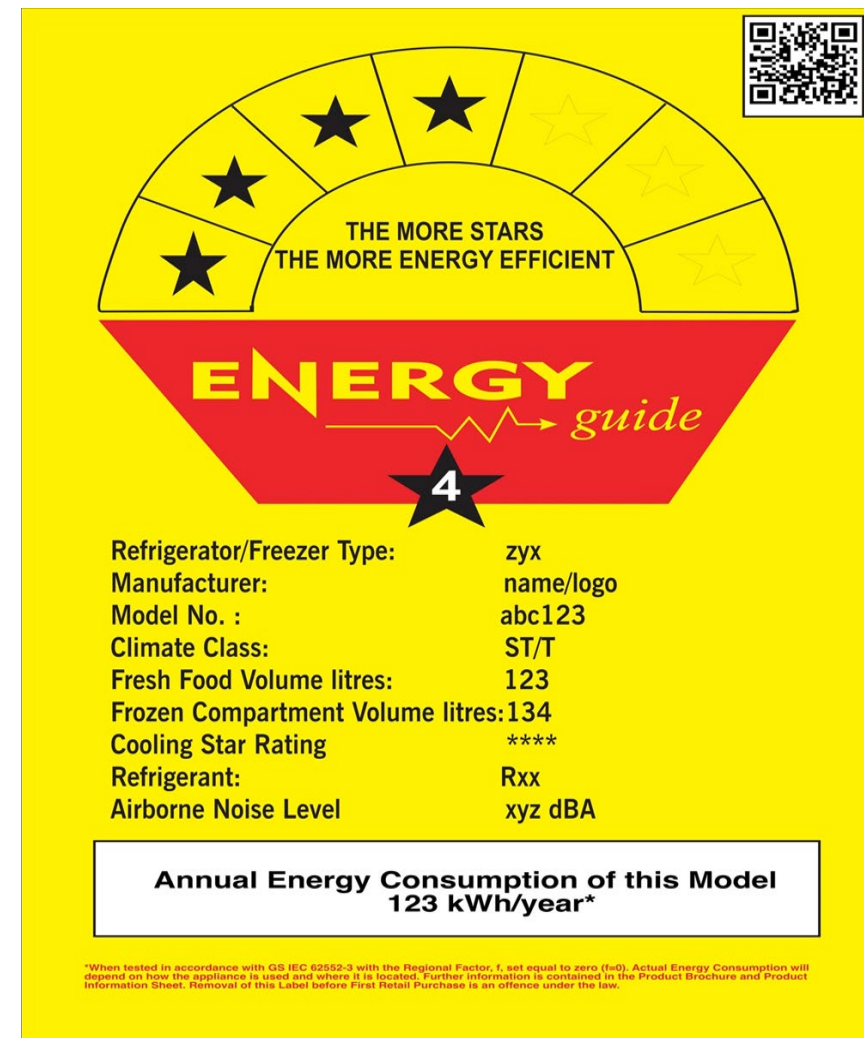


→ **STAR RATING**

→ **THREE STAR RATING**

→ **ANNUAL ENERGY CONSUMPTION**

→ **ADDITIONAL SPECIFICATIONS**



S&L is a market transformation tool. Refrigerating Appliance Market. Trend of imports from 2005 to 2020

EVIDENCE OF APPLIANCE MARKET TRANSFORMATION FROM 2005 – 2021

Figures A and B show that the proportion of new refrigerators imported into the country, between 2005 – 2021. Over 3.8 million new refrigerators imported over the period.

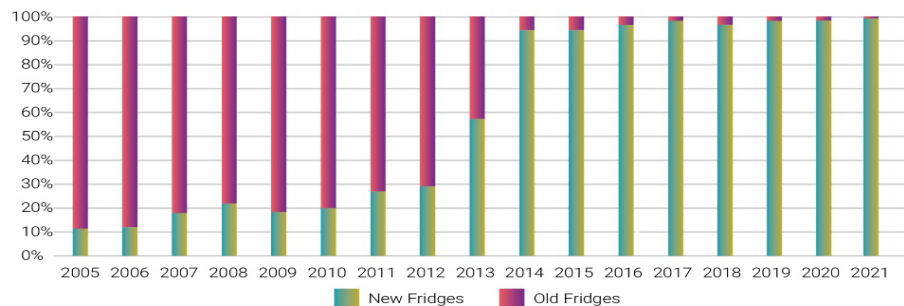


Figure A: Evidence of Transformed Market through MEPS from 2005 - 2021

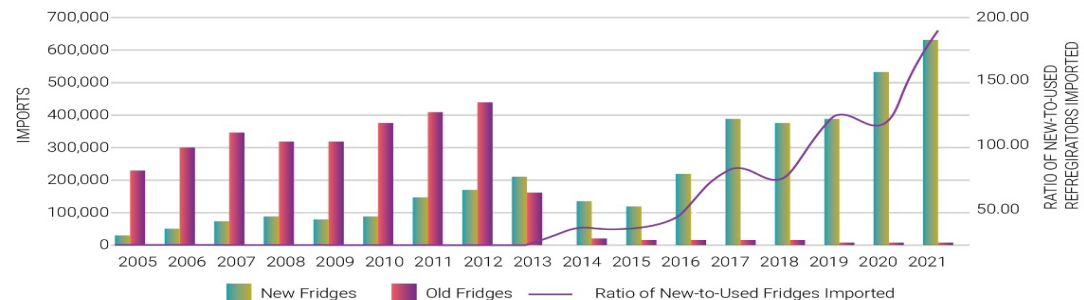


Figure B: Yearly Trends in New Versus Used Refrigerators Imports from 2005 – 2021

Figure C presents the yearly downward trend of used refrigerators, especially from 2013 due to the enforcement of L.I 1932.

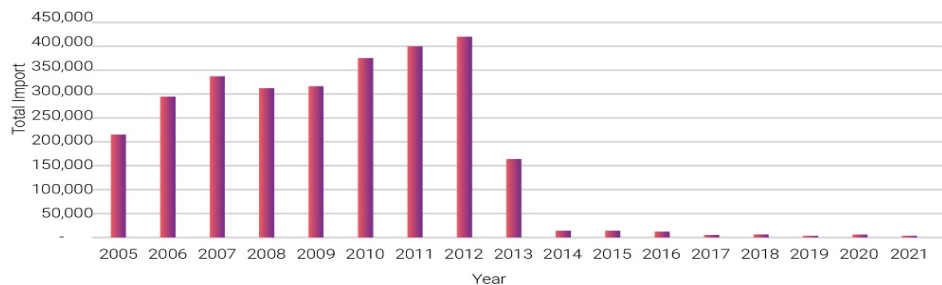


Figure C: Yearly Trend in Imported Used Refrigerating Appliances to Ghana from 2005 to 2021

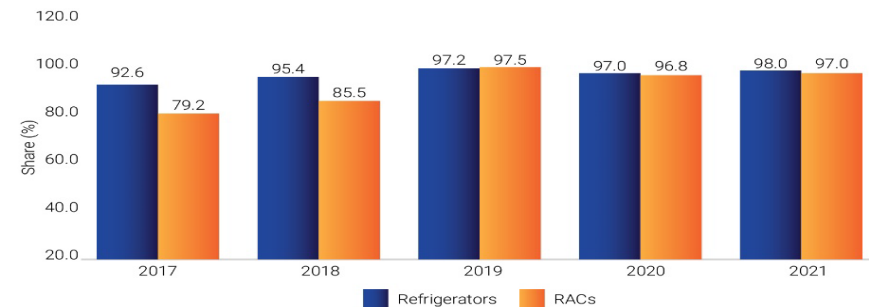


Figure D: Trends in Compliance Levels for Refrigerating Appliances and RACs from 2017 - 2021

Evidence of Seizures-Smuggling (Challenges)



Evidence of Seizures



Hydrochlorofluorocarbon Phase-Out Management Plan (HPMP)



PUBLIC NOTICE

PN.038022022



PHASING OUT OF THE IMPORTATION OF HYDROCHLOROFLUOROCARBON-BASED AIR CONDITIONERS IN GHANA

In partial fulfilment of Ghana's obligations to phase out the consumption of Hydrochlorofluorocarbon (HCFCs), mainly R22 under the Montreal Protocol, a Hydrochlorofluorocarbon Phase-out Management Plan (HPMP) was developed to guide the implementation of the phasing out process.

As part of measures to fulfil this obligation, controls on the importation of R22 and R22 based equipment including air conditioners (ACs) was incorporated into the legislative instrument (L.I 1812) in tandem with the phase-out reduction scenario. Furthermore, in view of the need to take necessary measures to avoid dumping on our markets as the phase-out date approaches, the EPA in collaboration with the Energy Commission, hereinafter referred to as the implementing institutions held a stakeholder meeting with importers of air conditioners and reached an understanding to enforce an implementation of a quota system to control the volumes of R22 based ACs imported into the country starting January 1, 2022. The quota allocation was based on historical importation data of importers for the years 2018-2021

All importers who have been allocated importation quotas will be written to and are expected to heed to the quantities approved effective January 2022.

The Energy Commission will from same date (January 2022) reject applications for import from non-quota beneficiaries.

For further information please contact, **Mr. Emmanuel Osae-Quansah** on **0501301418**; **Mr. Joseph Baffoe** on **0501301478** or **Mr. Hubert Zan** on **0242867902**.

Please take note and comply accordingly.

Success Story

- Appliance standards and labelling (S&L) regime was introduced in 2005
- Between 2013 - 2020, MEPS implementation using MEPSY Model **resulted in:**
- 10,754 GWh (10.8TWh) of electricity savings for both Refs. & ACs (Close to TOTAL Thermal Electricity \ generated (10,885GWh) in 2019,i.e 60% of the total generation in that year;
- 7.5 Mt of CO2 savings;
- Over 1billion USD savings on electricity bills; and
- Delayed the construction of 1,455 MW Power Plant Capacity.
- The enormous financial saving and environmental benefit resulting from deferred electricity consumption amplifies the positive implication of energy efficiency and MEPS programmes.
- Transformed cooling appliances and lighting market
- By end of November 2022, Appliance S & L will cover 21 EE and RE products
- CFC recovered 1,500 kg

Refrigerator & AC testing facility in Ghana-Verification testing



New Regulations

* Microwave

* Water Heaters

* Clothes Washing machine

* Television

* Computers

* Rice cooker

* Ventilating fans

* Industrial fans

* Comfort fans

* Refrigerators (Revised)

* Air conditioners (Revised)

* Distribution Transformers

* Electric motors

* Electric Kettle

* Public Lighting

* Set-Top Boxes

* Solar Panels

* Inverters

* Renewable Energy Batteries

* Prohibition on import of used Electrical Appliances

* Prohibition on manufacture of incandescent Filament lamps

The way forward

- 17 additional appliances have been added to the Appliance Standards and Labelling Regime.
- Standards for the three existing appliances have been revised
- Increase man power for enforcement
- Funds to promote energy efficiency programmes
- Promotion of Highly Energy Performance Standards (HEPS)
- Introduction of innovative Financing – On wage financing. e.g. **ECOFRIDGES GO** project.

ECOFRIDGES

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PAY LATER**

RELIEF IS HERE FOR ALL

**SALARIED WORKERS
& SELF EMPLOYED**

GRAB YOURS AND PAY IT YOUR WAY





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