

'Visi Coolers' — November 2021

Meeting with Major Consumers



Current Scope of work

- We are currently looking at: “*Glass fronted commercial cooling cabinets*” also known as Visi Coolers
- In 2022 we will focus on Commercial Chest Freezers. Domestic Chest Freezers may be in scope as well.
- Other current work includes policies for water heaters and distribution transformers for NEECA.
- Procurement standards for two cooling appliances for PEECA.
- Previous work includes: MEPS & Labels for Motors, and fans.
- K-CEP/CCC Project – working with the MoCC on:
 - revision of NDCs,
 - Development of a Pakistan Cooling Action Plan
 - MEPS for cooling appliances

A brief intro to benefits of having Standards and Labels

“Definition” of MEPS and Labelling

Minimum Energy Performance Standards (MEPS)

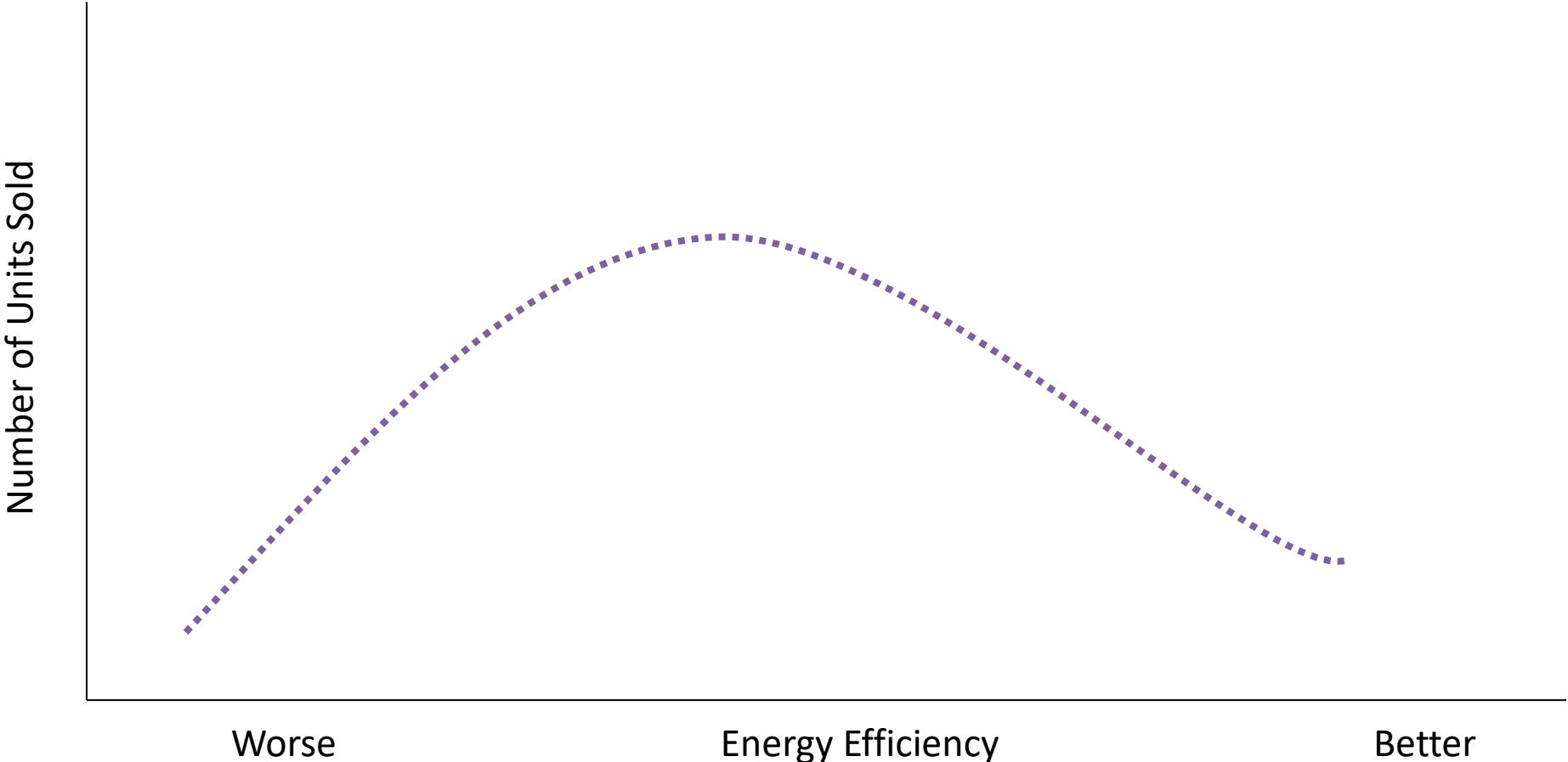
- Removal from the market of products that are deemed to have unacceptably low energy performance.

Labelling

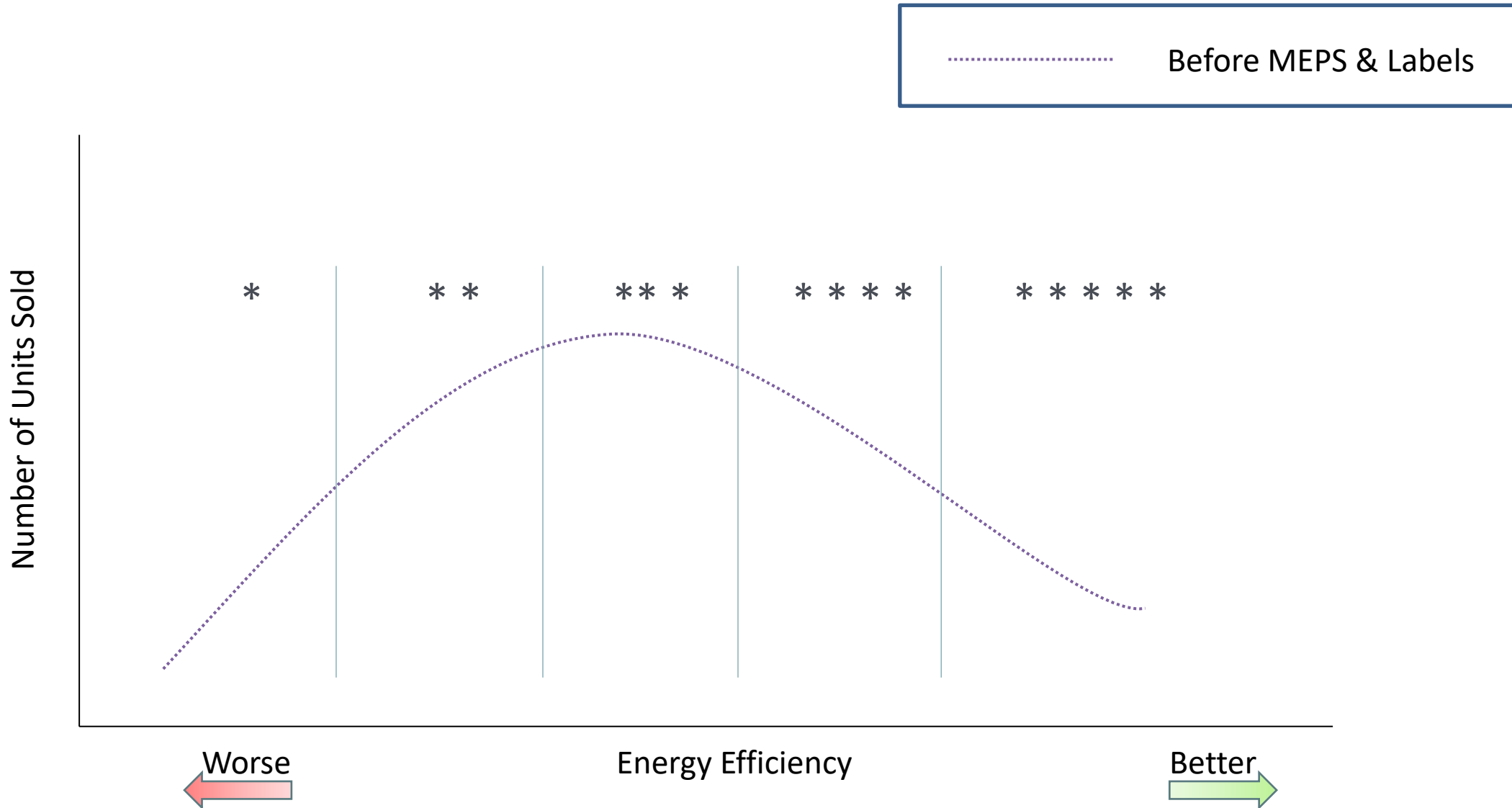
- To categorise the energy performance of products to enable differentiation of the “better” products from the “less good” products.
 - *Consumers get more transparency for decision making*
 - *Allows effective implementation of other policy (eg procurement)*

Distribution of Performance of Products in Market

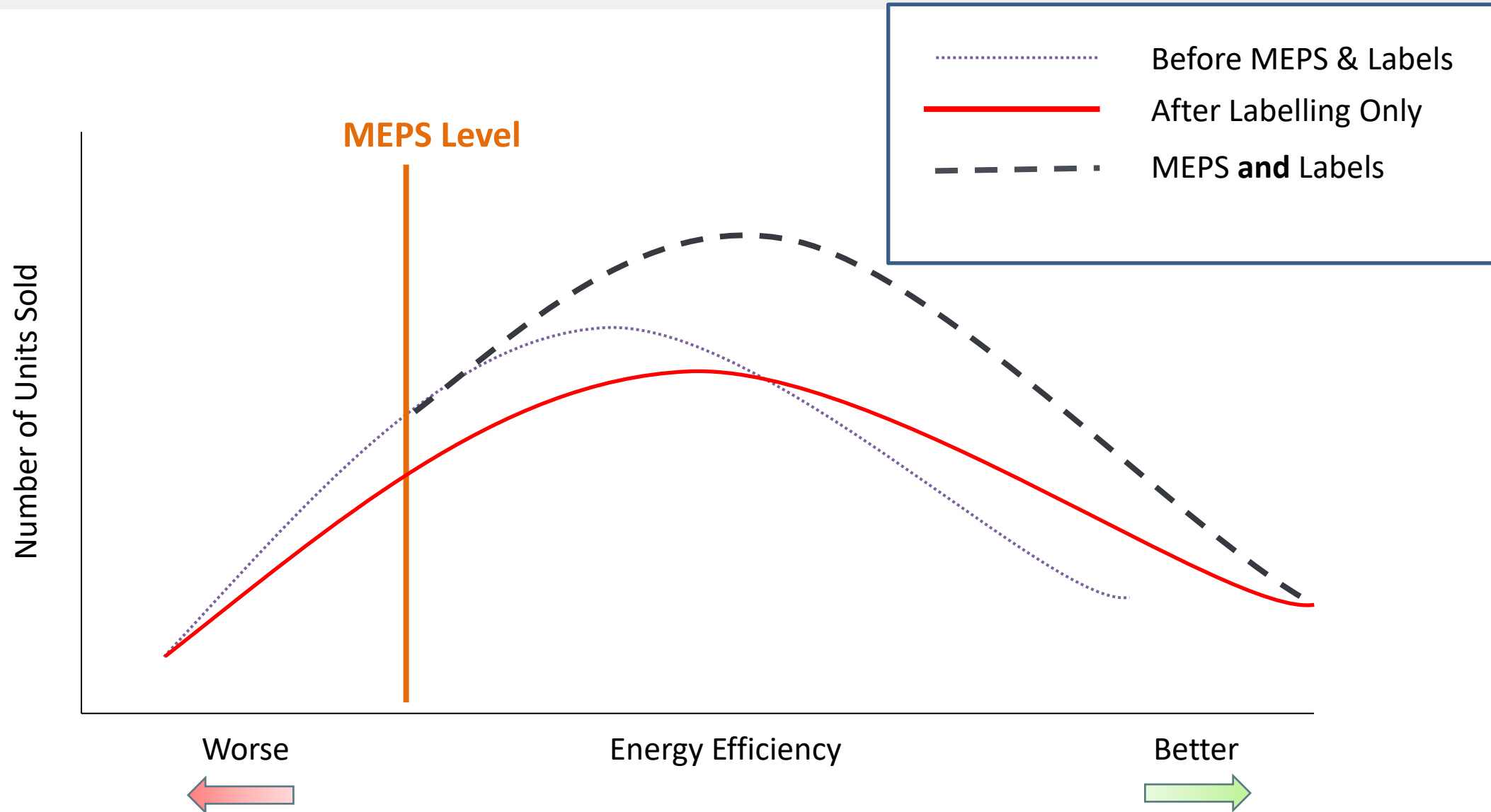
..... Before MEPS & Labels



Effect of Labelling: Transparently “Grading” Product Performance



Effect of MEPS and Labelling



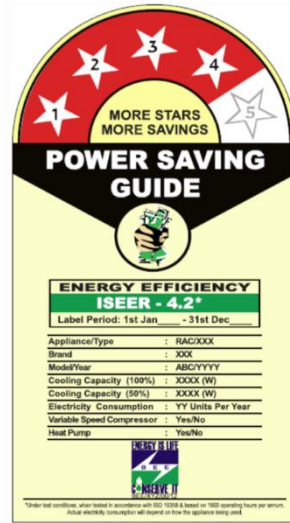
MEPS and Labelling around the world (2014)

| | Minimum Standards | Comparative Labels |
|-----------------|----------------------------------|--------------------|
| Europe | 939 | 652 |
| Asia Pacific | 243 | 228 |
| North America | 92 | 44 |
| Central America | 43 | 88 |
| Middle East | 79 | 78 |
| Africa | 57 | 59 |
| Total | 1453 1,900+ | 1149 |

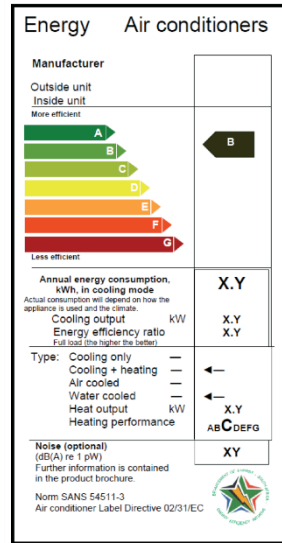
Source: Energy Standards and Labelling Programmes Around the World: in 2013, Department of Industry, Australia (2014)

Label Examples

Australia



Europe



China



USA



에너지절약

Korea



Currently Voluntary for Fans

Soon to be Mandatory

- Fans
- Air Conditioners
- Refrigerators
- Electric Motors
- Water Heaters
- *Transformers*
- *Commercial Refrigeration*

Benefits of Standards and Labels

National/Provincial

- Reductions in overall electricity consumption (or slowing of growth) = Fewer/shorter blackouts
- Reduced capital investment in energy supply increased energy independence
- Increased employment (*Efficient goods and services resulted in 900.000 additional jobs in the EU*)

Manufacturers

- Government supported level playing field/transparent competition
- Market openings for companies with low marketing budgets
- Product protection through Monitoring and Verification

Consumer

- Consistent and reliable product performance information to enhance decision making choice
- Potential to reduce lifetime cost(purchase plus running cost)

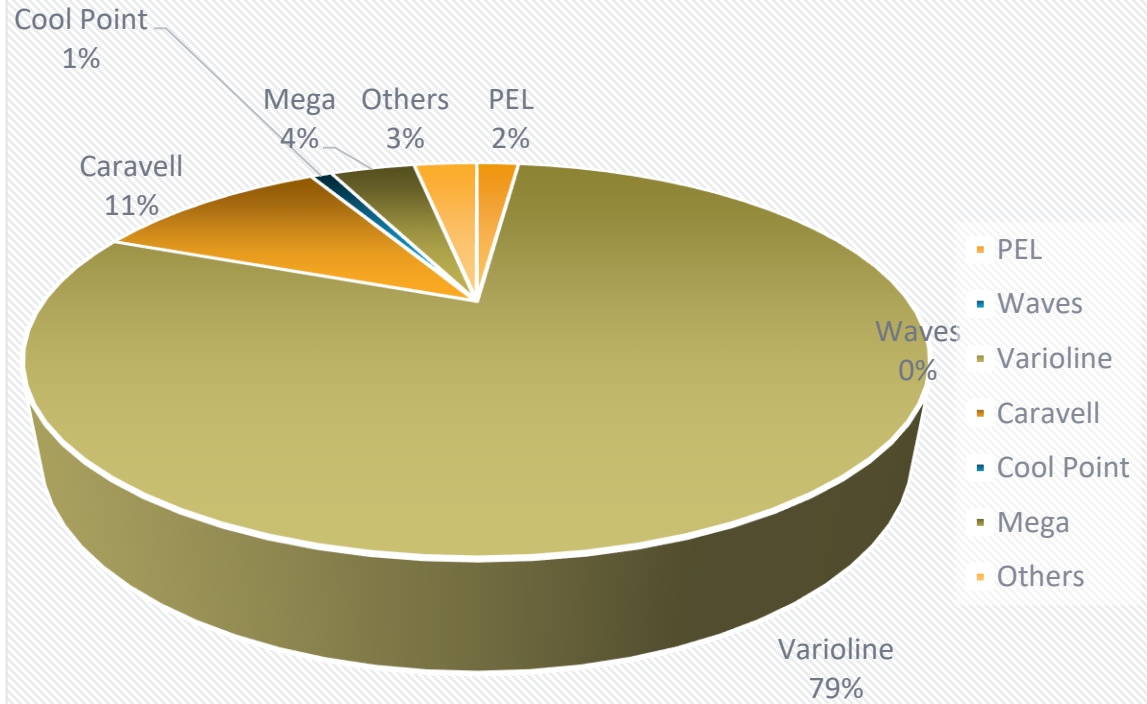
Basic Info / key areas while developing standards

- Any existing standards in the market we are working in
- TVs example
- Life time of the product
- Total number of products sold in the Country
- Installed stock in the Country
- Who the manufacturers are and their capabilities
- Any imported products
- Availability of test labs
- How the product compares internationally
- Room for energy efficiency improvement and savings

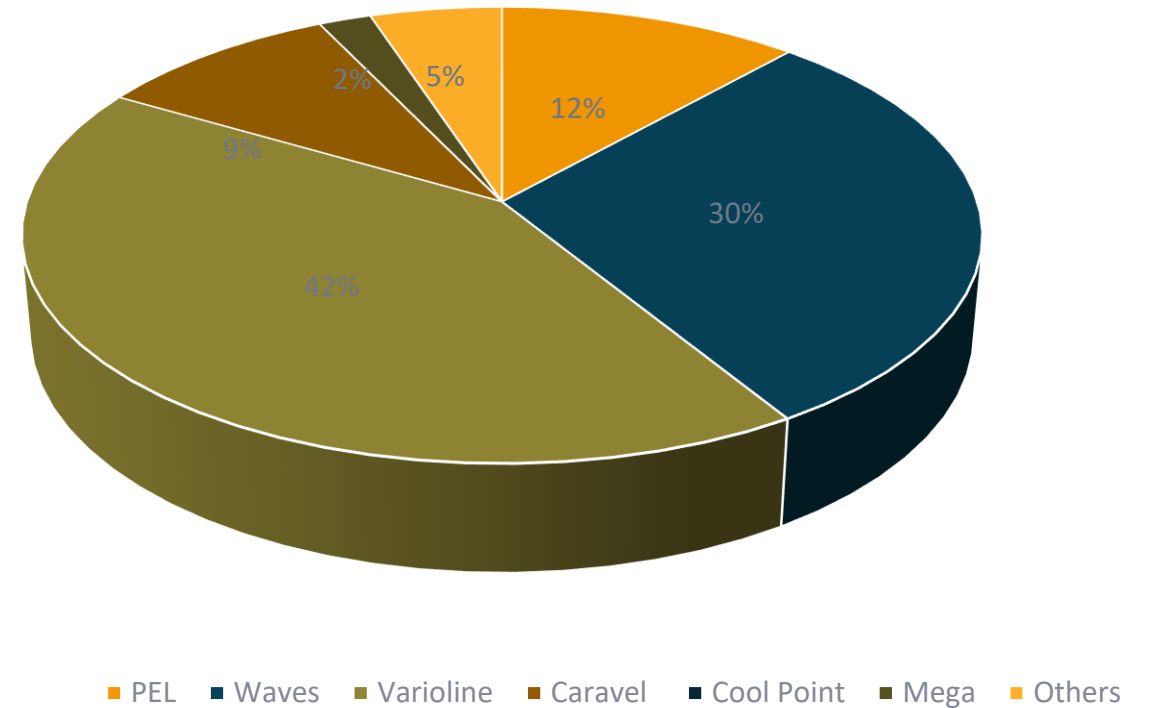


Market Summary

Market Share by Year 2019 - 20



Market Share by Last Quarter 2021



- Demand side is divided into two main segments:
 - MNCs – **74%**
 - Bakeries/grocery stores, and small shops – **26%**
- There are large bakery / grocery chains which all buy Visi Coolers for their products. Some of the big ones with a countrywide network are:
 - Gourmet
 - Shezan
 - Cakes & Bakes
 - Jalal Sons
 - Kitchen Cuisine
 - Bundu Khan

Sales, Stock and Lifetime

Sales, Stock & Lifetime

- According to some manufacturers (interviewed during October 2021) approximately **81,000** Visi Coolers were sold in the last 12 months. Out of these ~ 60,000 were sold to MNCs
- Is the 60,000 number correct and is the total number really 81,000 or is it closer to 150,000?
- What are refurbished numbers ?..made to look new after 08...? Should be referred to as new?
- Estimated stock as per manufacturers; varies between **1.2 Million to 1.6 Million**.
- **80%** of the stock is comprised of the **400** Liter Visi Cooler. In most cases this is actually a 385 Liter capacity Visi.
- Other common sizes are the 250 Liter and the 550 Liter
- Current Sales Growth is estimated at **05%**.
- Some migration currently also happening from Chest Freezers to Visi Coolers to host beverages
- Lifetime is estimated to be ~ **10 years...?**

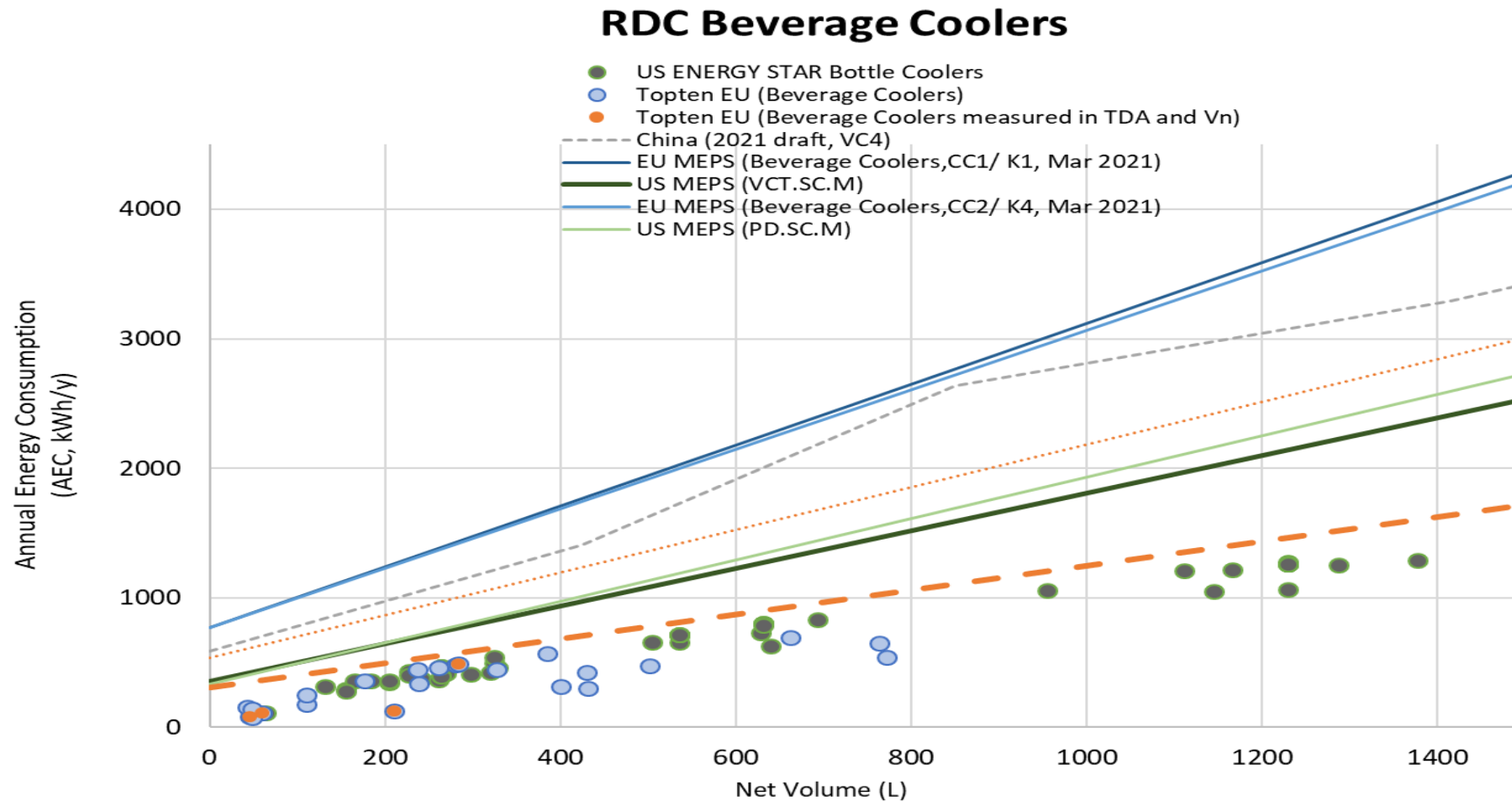


Refrigerants

- Commonly used compressors by the industry are Secop and Huayi.
- R 134 A has been the refrigerant of choice and that is the one installed in vast majority of the current stock.
- Manufacturers have the experience of working with R 290 and driven by MNCs the Visi Cooler industry will also shift to R 290 during 2022.
- The target date at the moment is Jan 2022
- Manufacturers have come up the curve as far as R290 is concerned and mainly because of Unilever and Engro who got them to use this refrigerants for their respective ice cream brands: Walls and Omore.

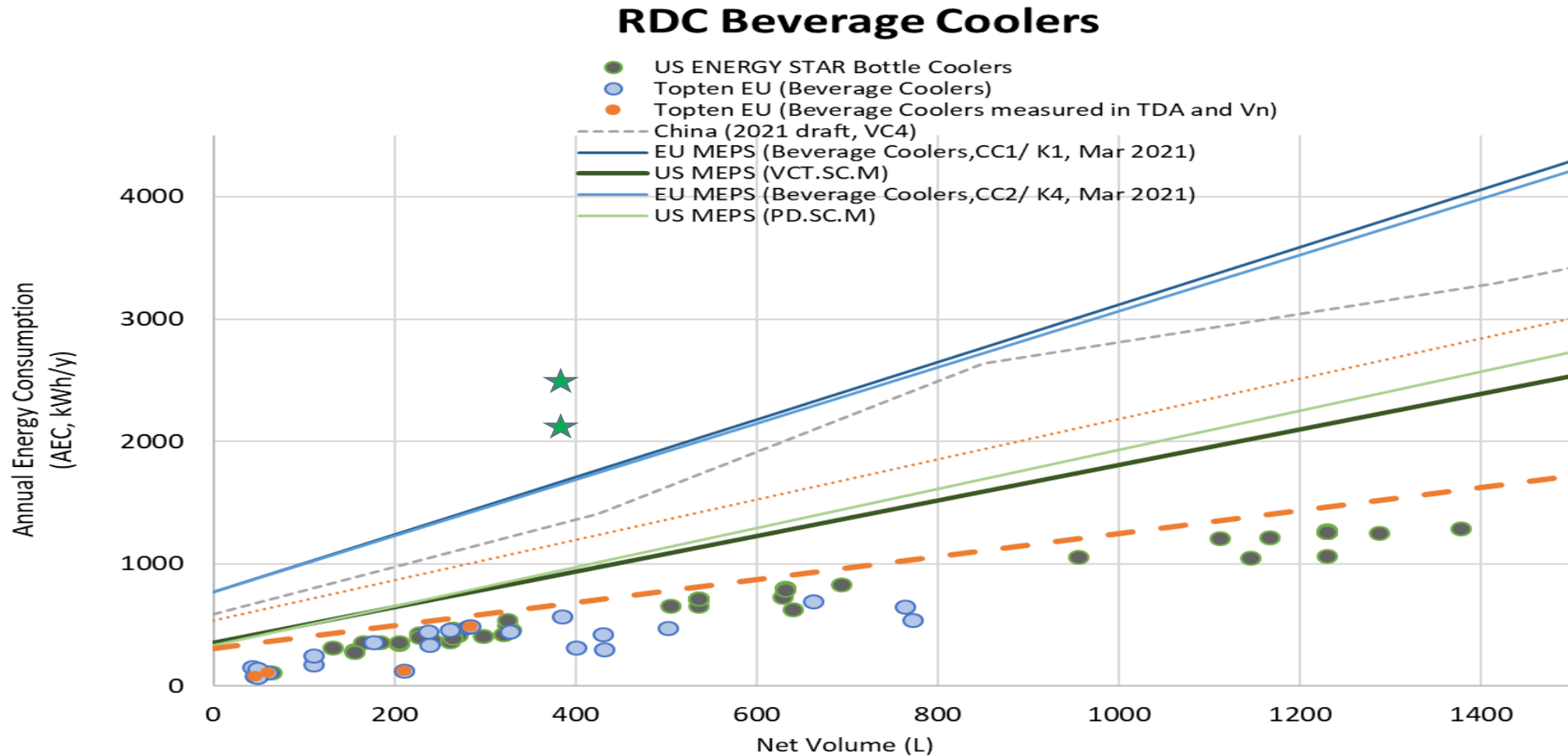
Energy Consumption & International MEPS levels

- The following illustration shows current MEPS levels in some developed economies:



Where Pakistan stands

- Plotting Pakistan's 400 L Visi on the illustration depicting international performance:



Energy Consumption in Pakistan

- The scoping study CLASP conducted in 2020 concluded that a 400 Liter Visi Cooler (which forms 80% of the market) consumes 5.83 KWh of energy per day.
- This translates to 2,128 KWh of energy annually.
- Currently we are conducting some tests in the market
- We have affixed *Efergy* energy monitoring devices to a few Visi Coolers operating in the market.
- Based on results received so far it looks like the earlier estimate will be validated probably with a 15% increase bringing the consumption to around between the 5.83 mark to 6.7 KWh per day.
- The latter translates to 2,447 KWh annually.
- Our tests take into account actual market conditions in terms of door openings as well as ambient temperatures.

GOING FORWARD..

- We are conducting a workshop on MEPS for Visi Cooler on 17th November and inviting ALL stakeholders. [Venue: TBD]
- We are aiming at writing draft MEPS before the end of the year and presenting them at a second workshop in mid December.
- We would need your support with:
 - Current Technical Procurement Specifications
 - Any test data that you might have
 - Any energy consumption data that might be available with you
 - Validating installed *stock* numbers, annual *sales* numbers as well as *lifetime*
 - Information available on refrigerant transit



Efficient Appliances for People & the Planet

HIMA[^]Verte

clasp.ngo