

**SEAD INDIA WORKSHOP
COP 26 PRODUCT EFFICIENCY CALL FOR ACTION
INDUSTRY PERSPECTIVE**

11/4/2020

Jitendra Bhambure Executive committee member
RAMA

SEAD : Action on product efficiency COP26 & beyond

2

- **Setting global product policy to double the efficiency** of four key products **sold globally by 2030** – industrial motors, **air conditioners**, refrigerators, lighting
- Supporting the delivery of crucial national climate change targets
- **Providing consumers and businesses** with more **efficient products** that are **affordable and cost-effective to own and operate**
- **Stimulating innovation** and provide businesses with export opportunities
- Promoting making products both energy efficient and climate friendly simultaneously by **reducing the use of refrigerants** in cooling appliances.

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Energy conservation

3

- India has around 6 to 7 % penetration of Room AC
- The per capita consumption of energy per year in space cooling is 69 KWh (IEC 2018 report) against world average of 272
- With increase in penetration the demand for energy will increase and needs to be addressed
- **Energy efficiency program is one of the tool to conserve energy**

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Pre EE labelling program

4

- The sale of products was based on brand and unverified claims.
- The running cost of the AC was a concern
- The production and sale was ~ 2.1 Mn in 2010
- Small manufacturers competed with organized players
- Manufacturer's investment in R & D was low and labs were not meeting the ISO 17250 standards
- Window AC share was ~ 30 %
- Units were imported as CBU as production capacity was limited

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India journey

5

- ❑ Phase-1 : Aligned the products with the EE program and upgraded as per the tables from 2010 to 2016 (Three upgrades)
- ❑ Phase-2 Migration from COP to ISEER, a technology agnostic EE program based on ISO 16358 standard.
- ❑ Temp range and bin hours as per India Hot and Dry climate zone
- ❑ India has considered 24 to 43 Deg C temp range against 21 to 35 in ISO 16358 with 1600 hours of use per year
- ❑ In phase-2 to meet higher Star requirements, India specific design with Inverter technology, larger condensers and evaporators with small diameter tubes and BLDC motors technology adopted
- ❑ **Manufacturers have absorbed the technology and are at par with global players**

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Post EE labelling program

6

- ❑ The program brought authenticity to the parameters published
- ❑ Customer got a guided choice of selection, experienced the lower running cost and could relate to the buying decision
- ❑ Manufacturers can plan the design and marketing strategies
- ❑ Manufacturers invested in R & D and Technology, accredited laboratories and manufacturing set-up
- ❑ The sales data reflects the maturity of Indian customers as they understand the importance of EE and running cost

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Comparison ISEER & ISO standard performance

7

	1	2	3	4	5	EESL
ISSER next table	3.3	3.5	3.8	4.4	5.0	5.4
ISO (CSPF) ~ 20 %* plus	4.0	4.2	4.55	5.3	6.0	6.5

* Actual test data of Inverter A/C from 4 manufacturers taken from Clasp/PWC report 17 Feb, 2014

- India ISEER is stringent
- CSPF : ISO recommended temperature Range : 21 to 35 Deg C
- ISEER : India climate range 24 to 43 Deg C
- RAMA suggests that study project should be taken**

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Split system table 2009 to 2020

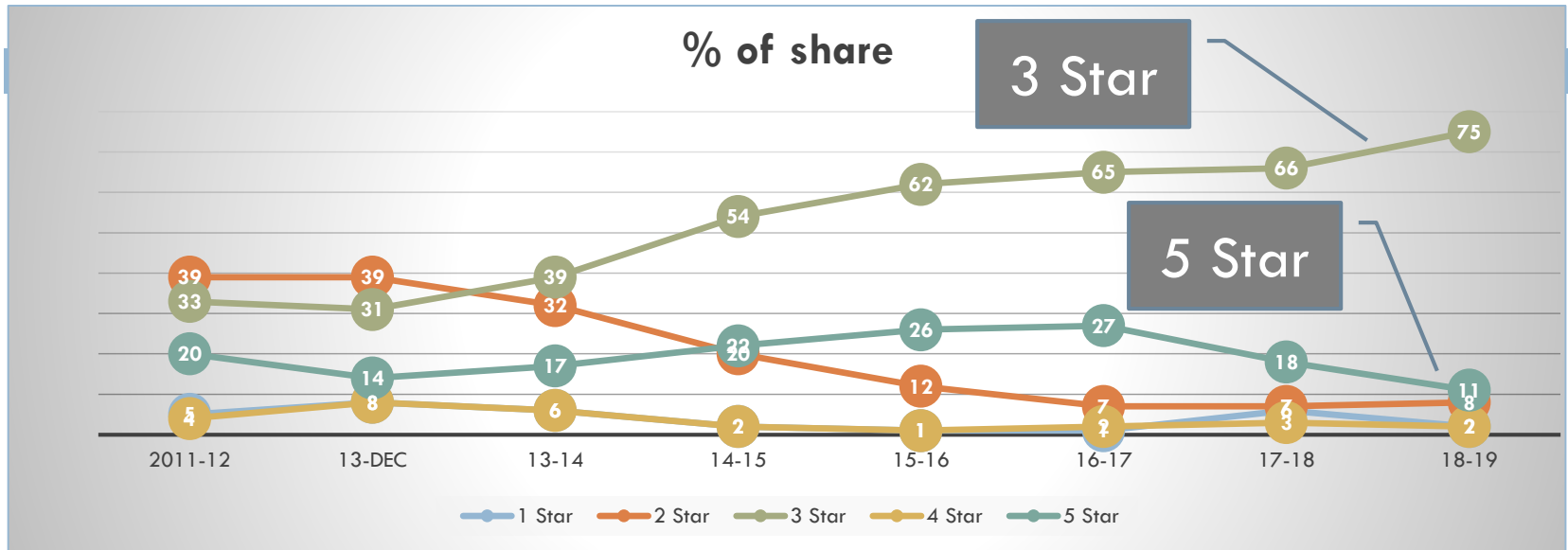
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Year	3 Star	5 Star	
2009	~ 2.3		No star labelling program
2010	2.7	3.1	
2012	2.9	3.3	
2014	3.1	3.5	
2016 July	3.5	4.5	Inverter table ISEER
2018	3.5	4.5	ISEER common table for Inv & Fix speed
Next	3.8	5.0	Planned
EESL		5.4	

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Statistics of labelling program

9



- ❑ **3 Star (75%) is preferred choice** followed by 5 Star (11%)
- ❑ One and Four Star are 2% each & 2 Star 8%
- ❑ Many manufacturers do not offer in 1, 2 and 4 Star category
- ❑ **Though EE is preferred, study is required to understand why Five star share is reducing.**
- ❑ EESL scheme has also not gathered traction

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Industry perspective ... 1/2

10

- ❑ **Comparison of products of different countries should be made as per ISO 16358 standard for realistic comparison**
- ❑ The technology adopted is at par with the developed countries.
- ❑ Share of Inverter AC reached above 50 % in 5 years which is one of the fastest growth in the world
- ❑ CLASP report study indicates the average usage is 1200 hours against 1600 considered in ISEER, we should revisit the program parameters
- ❑ With comfort for all the EE labelling program should be crafted with 10 years perspective

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Industry perspective ... 2/2

11

- ❑ **Ratcheting the level should be carefully done, by keeping balance between affordability & EE and should not allow the weighted average efficiency of products sold to slide and Window AC share to go up**
- ❑ Investment for each changeover is ~ 50 Mn \$ and manufacturers need time to recover the cost
- ❑ The challenge is to offer affordable products for which not only technology but supply chain and operational cost optimization needs to be addressed
- ❑ Policy intervention are required to promote high efficiency products
- ❑ Growth is essential for further investment

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Jitendra Bhambure

Advisor Technology Blue Star Ltd

Executive committee member RAMA

UNEP : TEAP task force member and RTOC member

jm.bhambure@gmail.com

jmbhambure@bluestarindia.com