



# Standards & Labeling Program

## M&V protocols

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# Legal Framework for Energy Efficiency



- Energy Conservation Act enacted in 2001
- Bureau of Energy Efficiency set up as the nodal central agency
- State Designated Agencies at the state level created for implementation of the Act.
- Energy Conservation Act, 2001, overcomes some market barriers by enabling:
  - Setting of minimum energy standards for, and affixing energy-consumption labels on appliances and equipment
  - Promulgation of Energy Conservation Building Codes
  - Energy use monitoring, verification and reporting by large energy users, and the establishment of energy consumption norms for these consumers- Creation of cadre of Energy Management professionals in the country

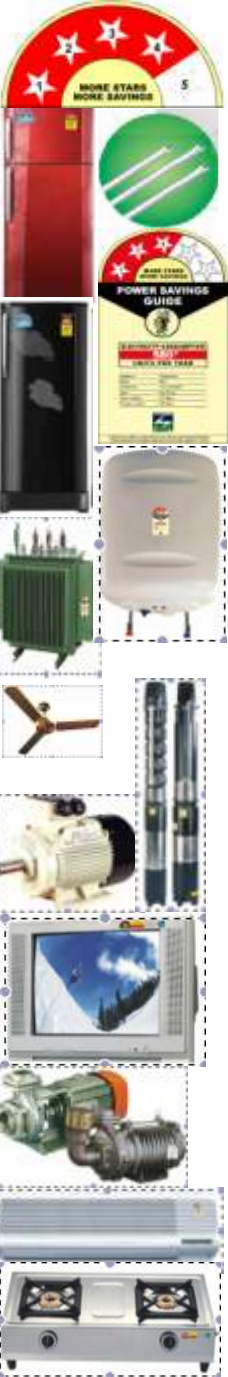


# Mission- S&L Programme

- To reduce overall energy consumption by use of Energy Efficient equipments/ appliances 18 BU by 2012 (~3000 MW).




# Legal Provisions for regulation



- Standards and Labeling programme is a key thrust Area of BEE. Central Government, under the Energy Conservation Act, 2001 has powers to:
- Direct display of labels on specified appliances or equipment .
- Enforce minimum efficiency standards by prohibiting manufacture, sale, and import of products not meeting the minimum standards

# Standards & Labeling Programme

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- To create appropriate legal and regulatory environment for energy efficient end use products
  - To provide the consumer an informed choice about energy saving by using efficient devices
  - To gear up Indian industry to compete in markets that have made/ are making such standards mandatory eg. US or EU
  - To stimulate market transformation in favour of energy efficient equipments and appliances- both from supply and demand side
  - To reduce overall energy consumption by use of 20 such equipments/ appliances- 18 BU by 2012 (~3000 MW)
  - To provide assistance/ support to Small & Medium Manufacturers
  - Scheme approved for Rs. 47.71 crores; fund fully utilized, and ECE submitted for Rs. 22 crore.

The National Energy Labeling Programme launched by Hon'ble Union Minister of Power on 18th May, 2006.

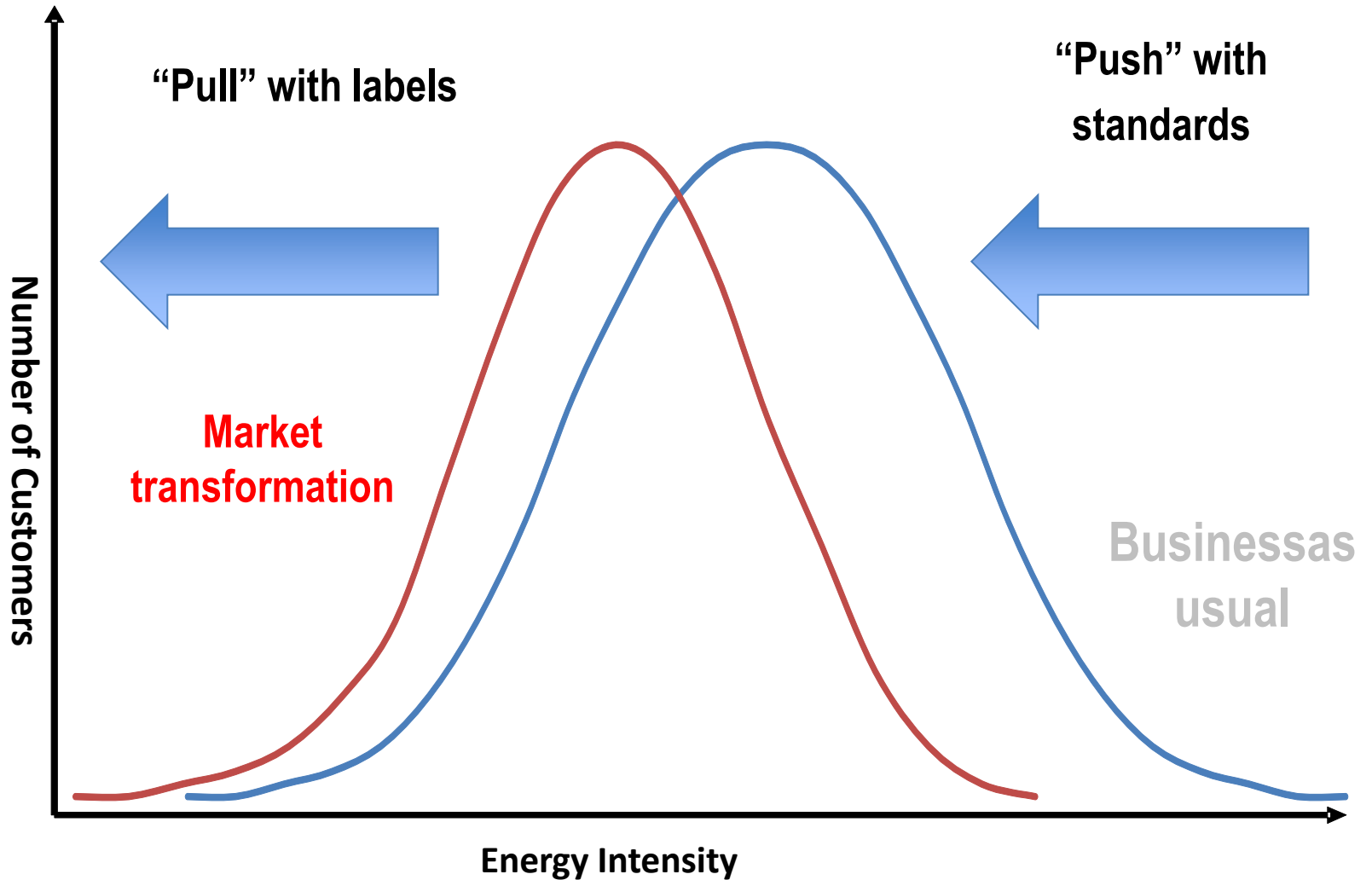
# Benefits of EE S&L Programs

- Reduces capital investment in energy supply infrastructure.
- Enhances national economic efficiency by reducing energy bills.
- Enhances consumer welfare.
- Strengthens competitive markets.
- Reduces pollution and helps meet climate change goals.
- The harmonization of EE S&L programs often brings additional benefits:
  - ❑ Reduces program costs by adopting existing program;
  - ❑ Avoids or removes indirect barriers to trade.





# Market transformation



# Institutional frame work for regulation

- **BIS – National Standards Body**
  - Formulation & Implementation of National Standards
  - Production certification, Quality system certification, EMS certification etc.
- **Bureau of Energy Efficiency (BEE)**
  - BEE is established to implement & monitor the Energy Conservation Act, 2001
  - One of the key thrust areas of EC Act, 2001 is Standards & Labeling Programme
  - Formulation of Energy Efficiency Standards.
- **Laboratories accredited by National Accreditation Board of Laboratories**
- **Educational Institutions.**
- **Manufacturers and Manufacturing Associations**
- **Consumer Organizations**
- **Ministries and key stakeholders.**

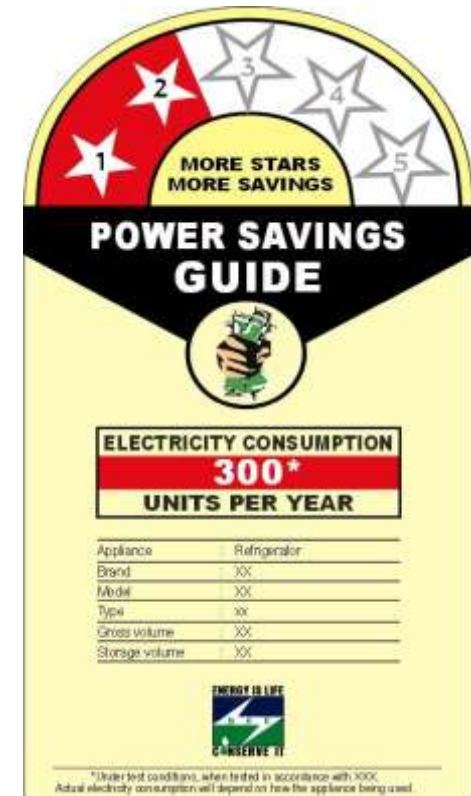




# Products covered under Indian S&L Program

## Current List

1. Frost-free Refrigerators
2. Tubular Fluorescent Lamps (TFL)
3. Air-conditioners
4. Direct cool /Frost Free Refrigerators
5. Distribution Transformers
6. Motors
7. Pump sets
8. Ceiling fans
9. LPG Stoves
10. Colour TVs
11. Storage Water Geysers
12. Washing Machines



***Launched on 18<sup>th</sup> May 2006 , for 4 products by BEE***

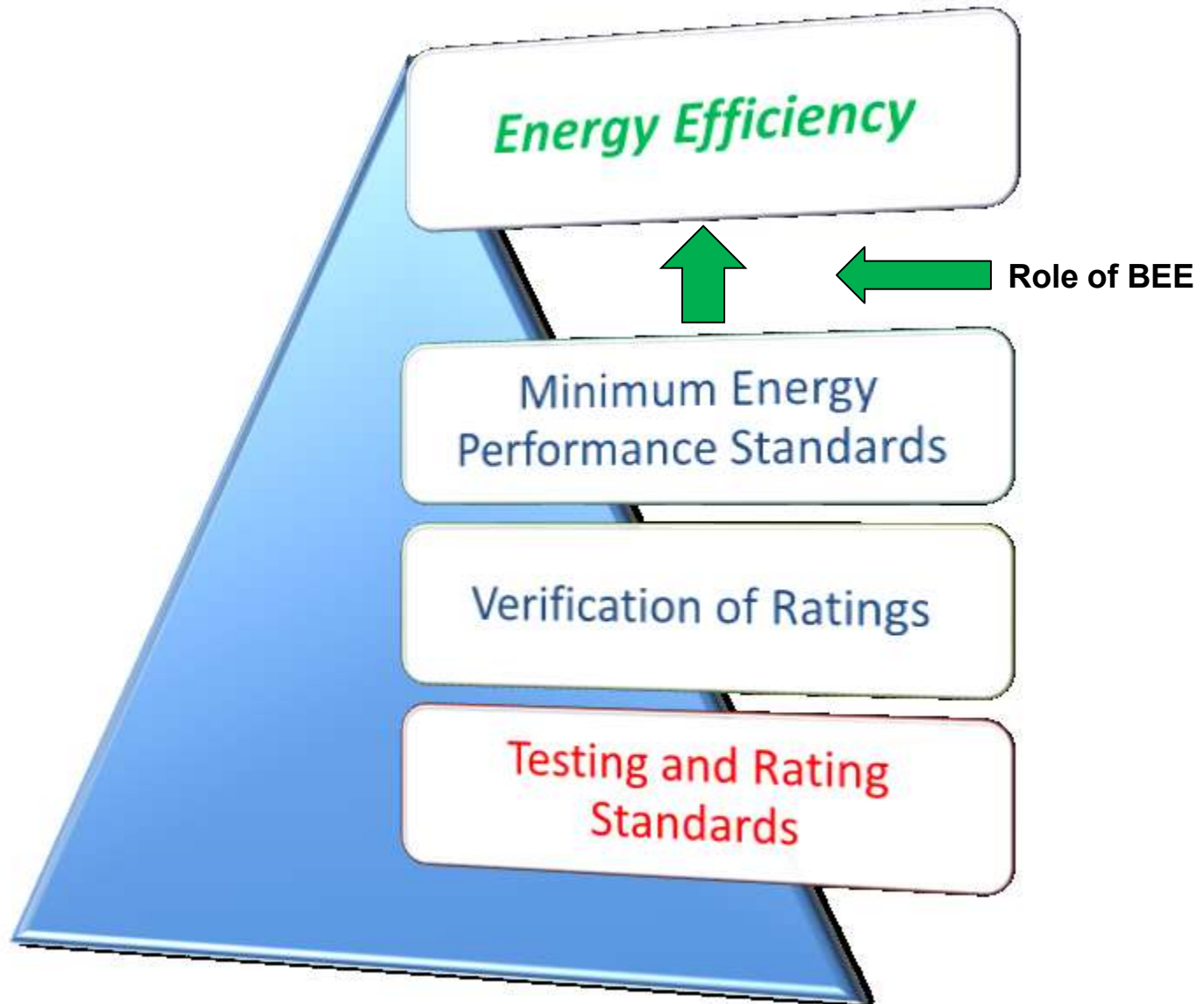
# More Stars = More Savings

## Efficiency Standards



	<u>2010</u>	<u>2012</u>	<u>2014</u>
	<b>3.1</b>	<b>3.3</b>	<b>3.5</b>
	<b>2.9</b>	<b>3.1</b>	<b>3.3</b>
	<b>2.7</b>	<b>2.9</b>	<b>3.1</b>
	<b>2.5</b>	<b>2.7</b>	<b>2.9</b>
	<b>2.3</b>	<b>2.5</b>	<b>2.7</b>

# The Building Blocks of Energy Efficiency – Industry + Government



# M&V Protocols-Governing body



Recommend to the Bureau on the following issues:

- **Enforcement of provisions of the Act.**
- **Develop the criteria for deciding whether challenge test and further actions should be undertaken or not.**
- **Verification of the legitimacy of challenges to the label, and further action**
- **Selection of samples for verification and challenge testing**



# M&V Protocols-Scheme



The scheme seeks to create a new market for energy efficient products by not only carrying out a sustained programme for awareness and education but also putting in place institutional structure to –

- **Oversee implementation at National level with involvement of States and other stakeholders.**
- **Conduct market research and situation analysis** for each of the new equipment to understand the key indicators concerning the market, conservation potential and impact on national energy consumption.
- **Conduct research to arrive at parameters to be tested, test procedure to be adopted,** collection of sales literature and efficiency levels and assess availability of NABL accredited laboratories for testing to assist the technical committee in arriving at informed decisions.
- **Conduct engineering and economic analysis to arrive at optimum energy performance standards** and this would be the basis of discussions at the technical committee meetings.



# M&V Protocols-Implementation

For day to day monitoring of the programme, there is a need for an institutional mechanism in form of an Independent Agency for Monitoring and Evaluation (IAME) to undertake:

- Scrutiny of application forms
- Conducting physical verification
- Selection of samples of equipments
- Getting the test checks done from designated laboratory;
- Witness the verification testing,
- Compilation and submission of test check results





# M&V Protocols-Penalties



**Verification Testing - (1) The NSLIC shall arrange to oversee the oversight of verification testing for each equipment as under:**

- At least one sample of each star labeled product is tested by designated lab.
- In case of failure a second test may be carried out with twice the initial test sample size, and all the samples should pass the test . The applicant will bear the expenses related to the second test.
- In case the equipment fails the second test , the Bureau directs the applicant to -

1. Correct the label level or remove the defects or deficiencies.
2. Withdraw all the stocks from the market to change the label .
3. change particulars/information on the advertising material withdraw the authority to affix labels

In case the manufacturer fails to comply, the Bureau can-

1. notify the consumers by such means as it may consider necessary
  2. Recommend the initiation of adjudication proceedings .
- The efforts resulted in saving of 3300 MW till 2009-2010 .



# Priorities For The Beginners

- Harmonization of standards with International standards.
- Information sharing to establish optimum technological standards best suited for the country.
- Knowledge sharing on required policy interventions for establishment of SOP.

