

Implementation of Singapore's Energy Conservation Act

Presented at: Roundtable Discussion on Energy Efficiency Policy Recommendations (EEPRs) for Southeast Asia

Presented by: A. Ram Bhaskar

Director, Energy Efficiency & Conservation

bhaskar_ram@nea.gov.sg

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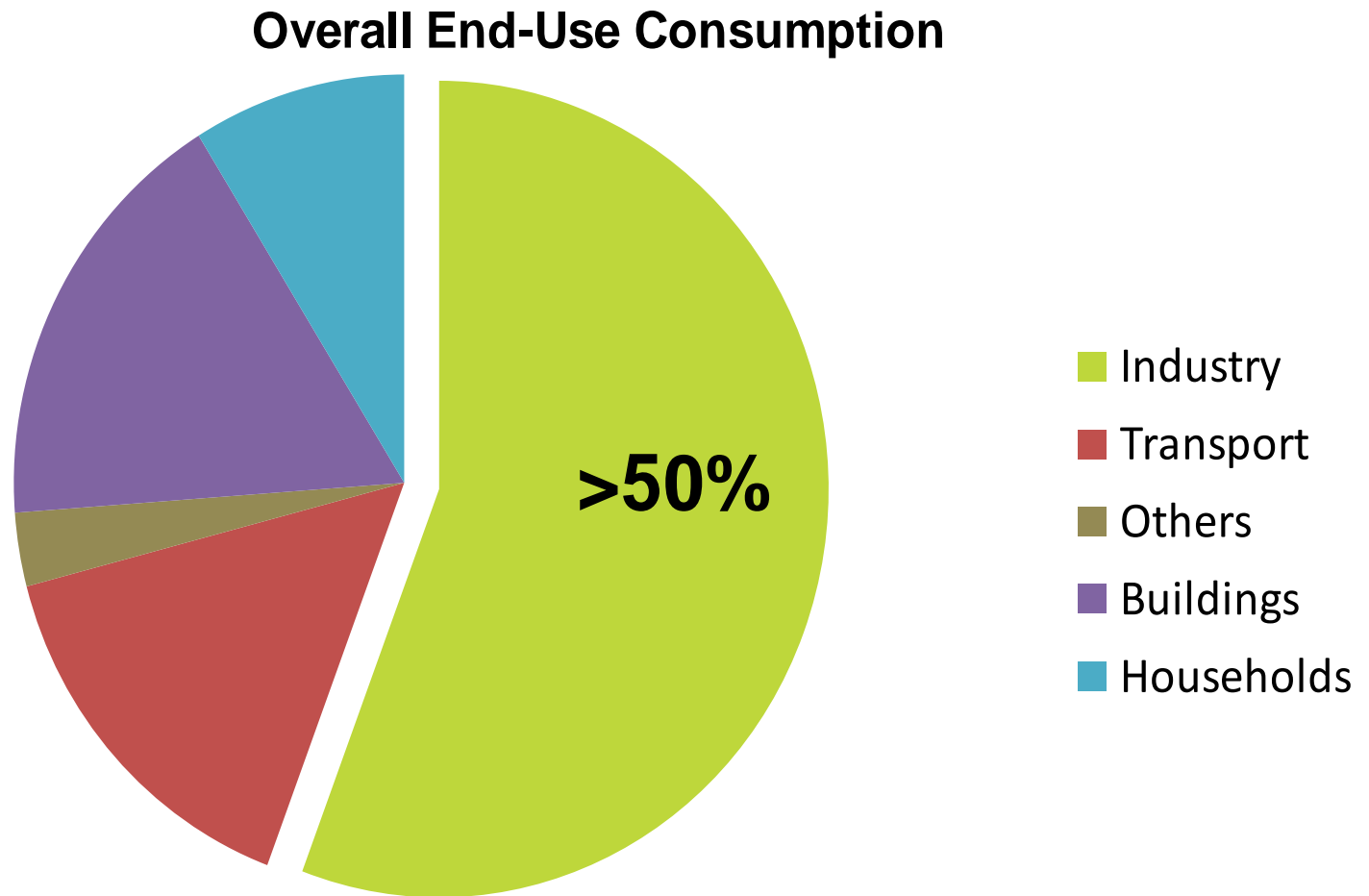
Outline

- 1 **Background**
- 2 **Energy Conservation Act**



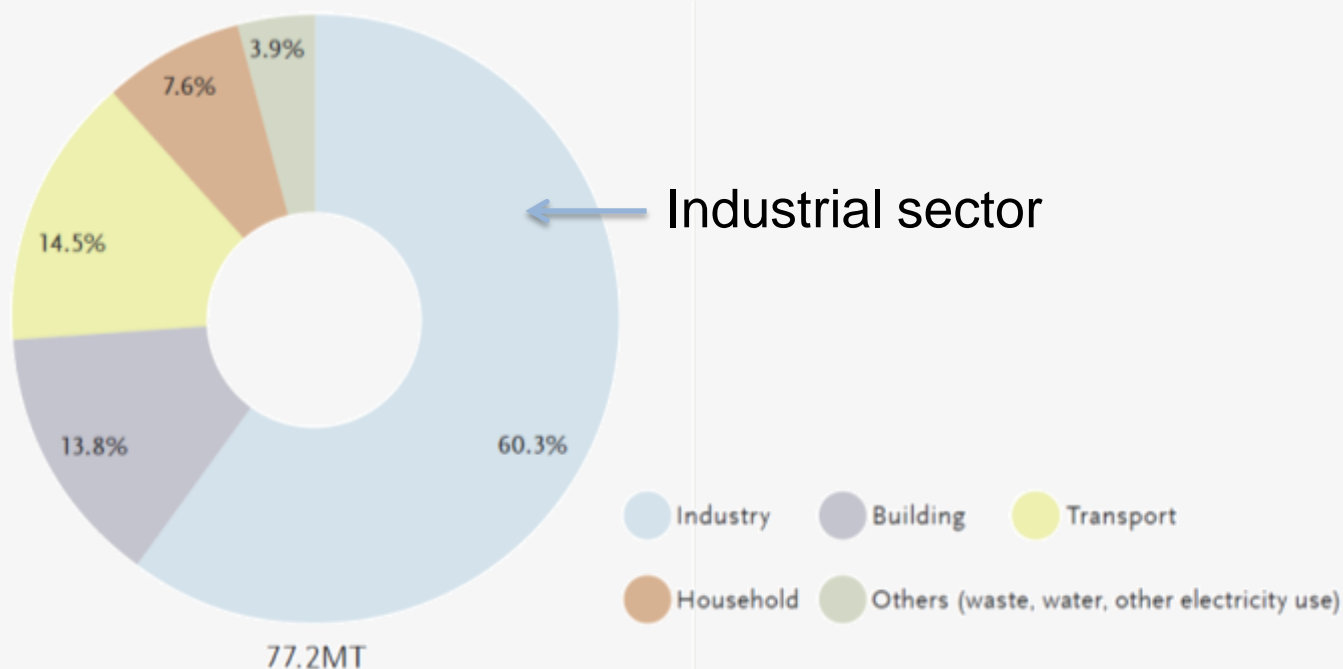
1 Background

Singapore's Energy Consumption Profile



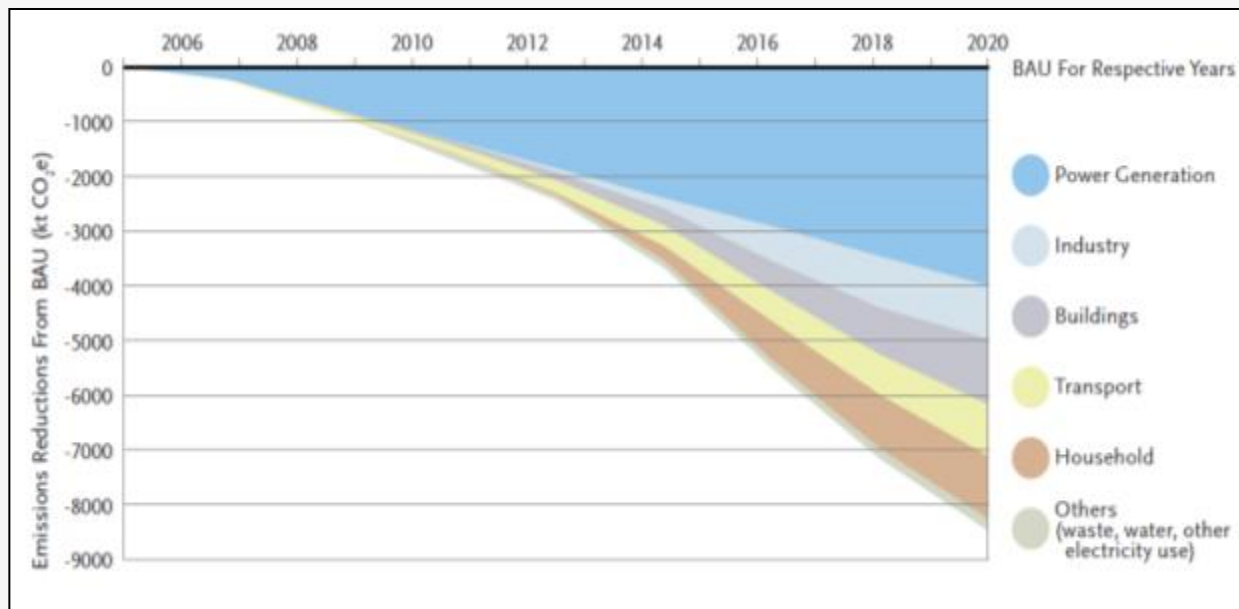
Singapore's Greenhouse Gas Emissions

- BAU GHG emissions expected to reach 77.2 MT in 2020
- Breakdown of projected 2020 BAU emissions

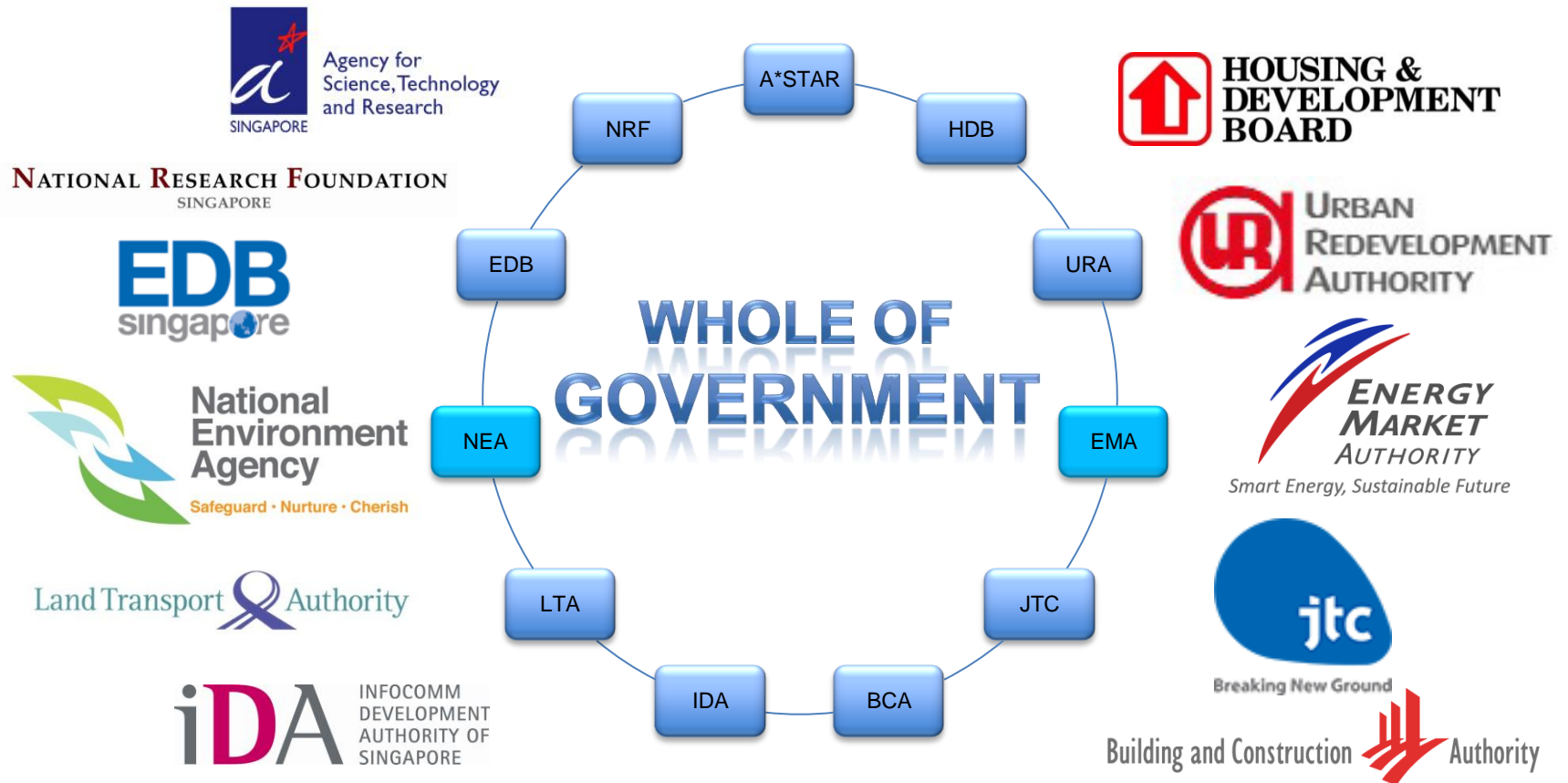


Energy Efficiency is a Key Mitigation Measure

- Key mitigation measures are **energy efficiency** & fuel switching
- Target - reduce emissions by 7% to 11% below 2020 BAU levels
- Sectoral contributions to emissions reductions (from BAU)



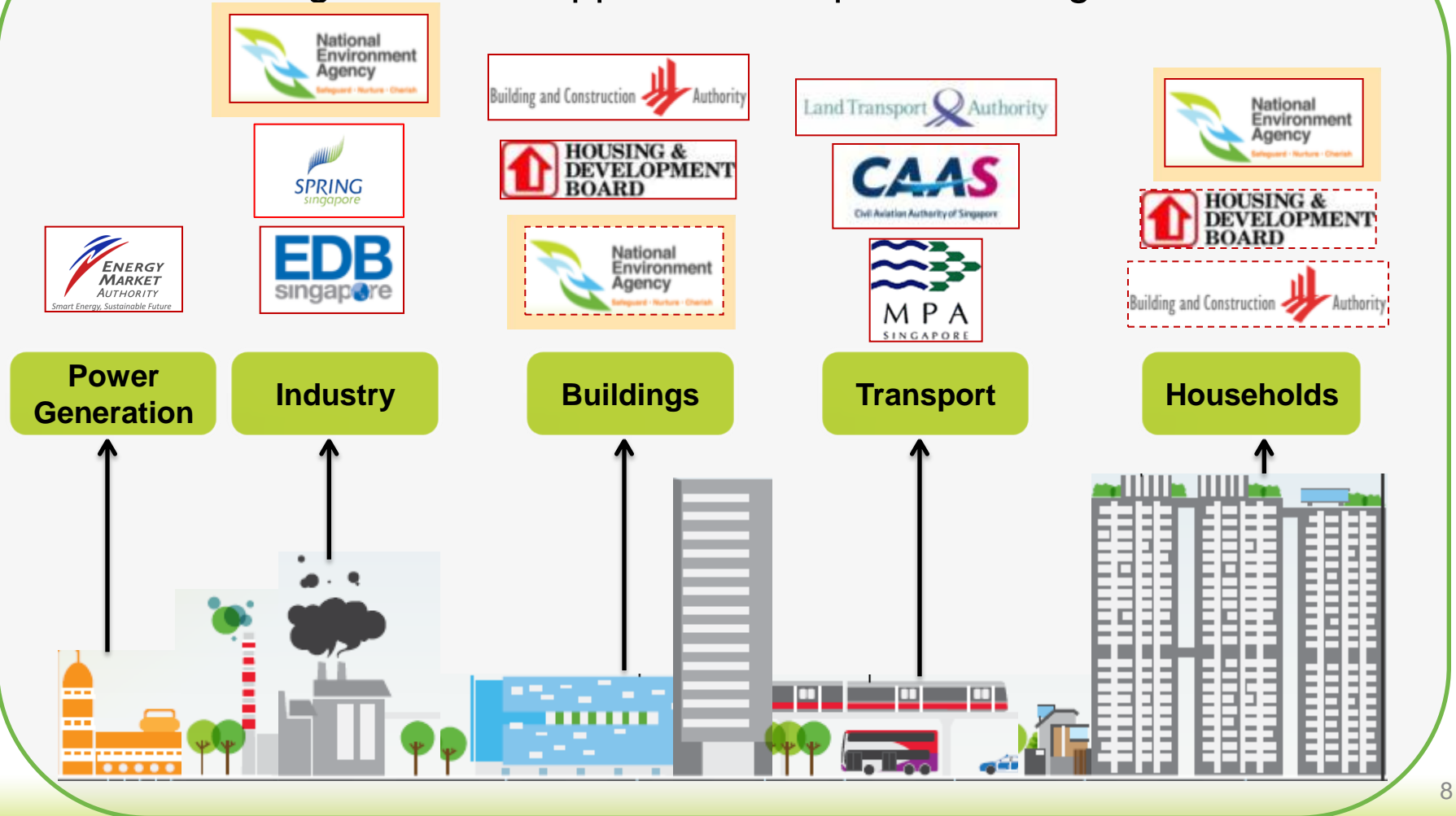
Whole of Government Effort



To jointly promote and facilitate the adoption of energy efficiency in Singapore

Singapore's Approach to Mitigation

- Whole-of-government approach to implement mitigation measures



2 Energy Conservation Act

Energy Conservation Act 2012

Energy Conservation Measures for Domestic and Industry Sectors *(Administered by the National Environment Agency)*

1. Energy labelling and minimum performance standards for registrable goods
2. Energy management practices for corporations

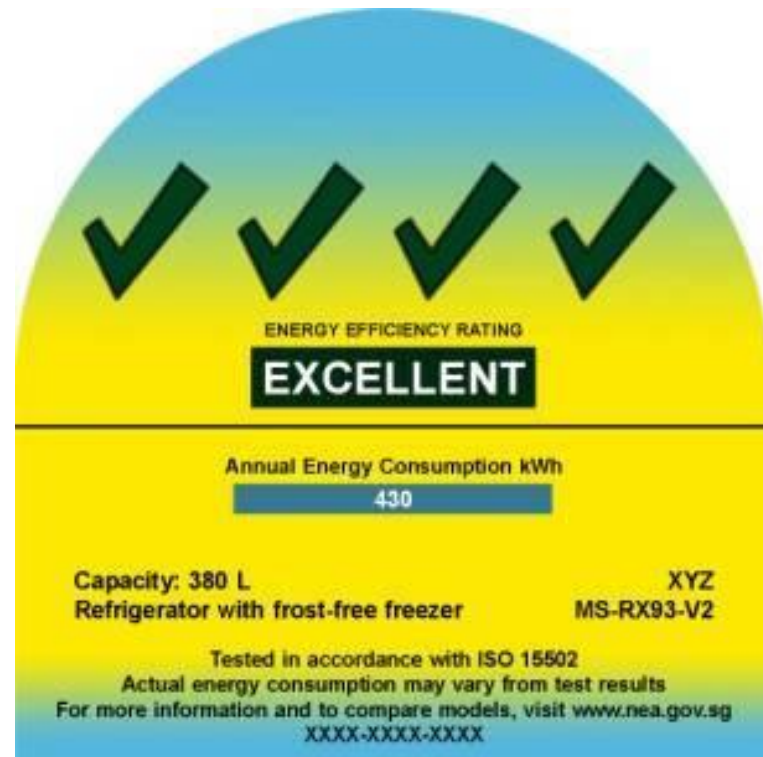
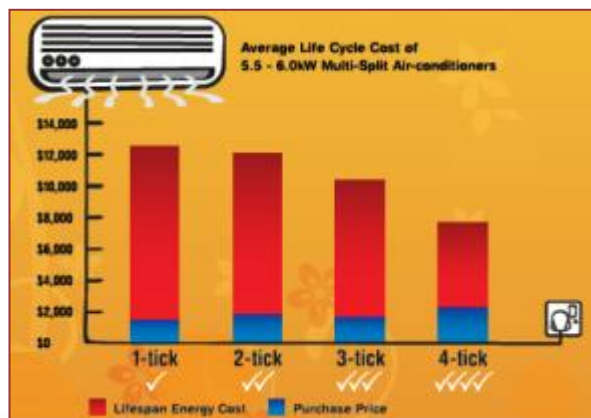
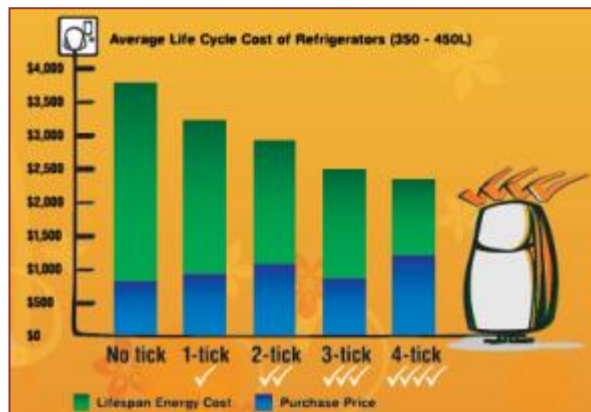
Energy Conservation Measures for Transport Sector *(Administered by the transport agencies under the Ministry of Transport)*

1. Fuel economy labelling, etc., of motor vehicles
2. Energy management practices for transport facility operators

Energy Labelling and Minimum Performance Standards for Registrable Goods

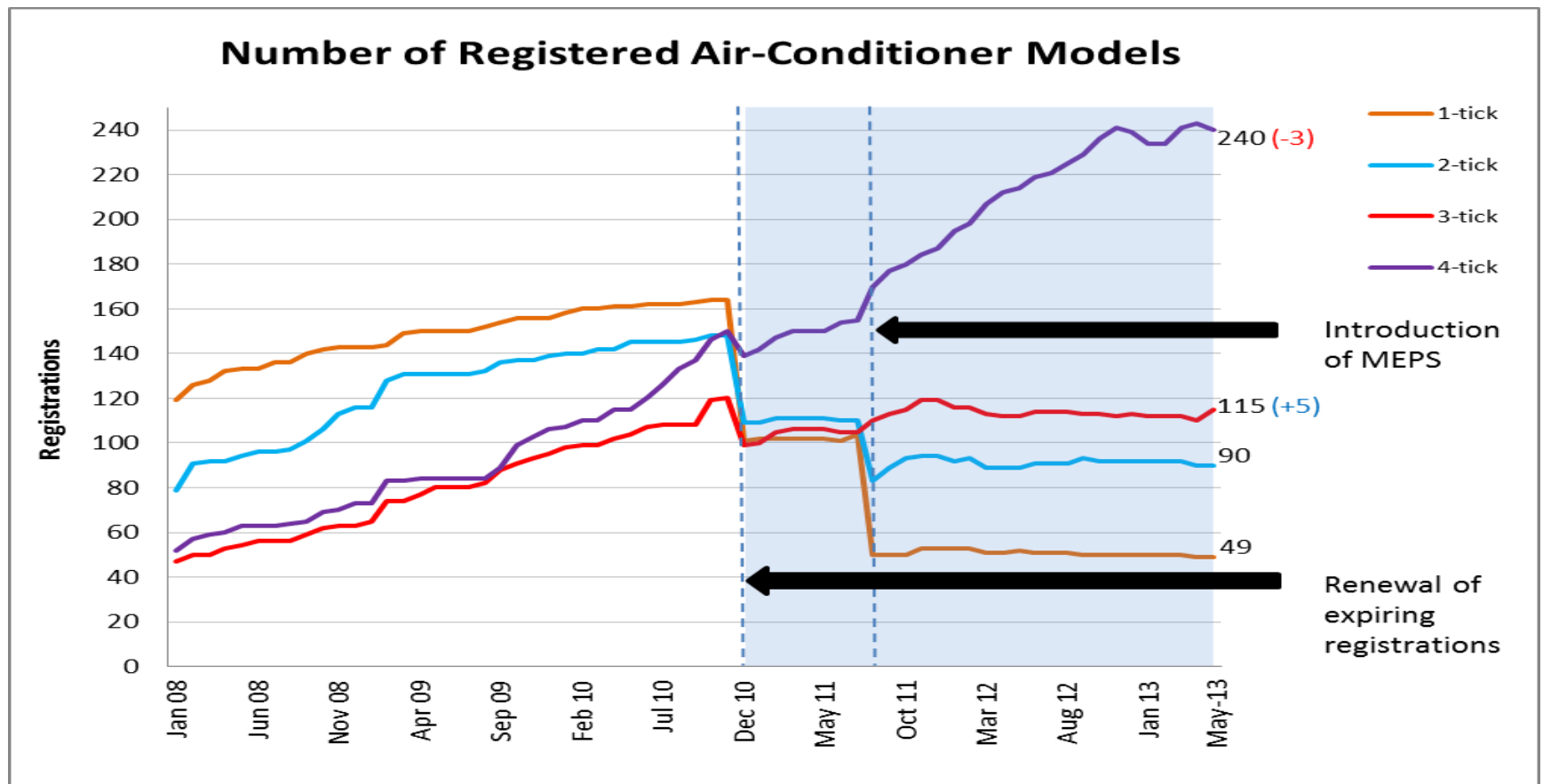
Mandatory Energy Labelling Scheme

Allows comparison of performance and lifecycle costs of different models in order to make informed purchasing decisions



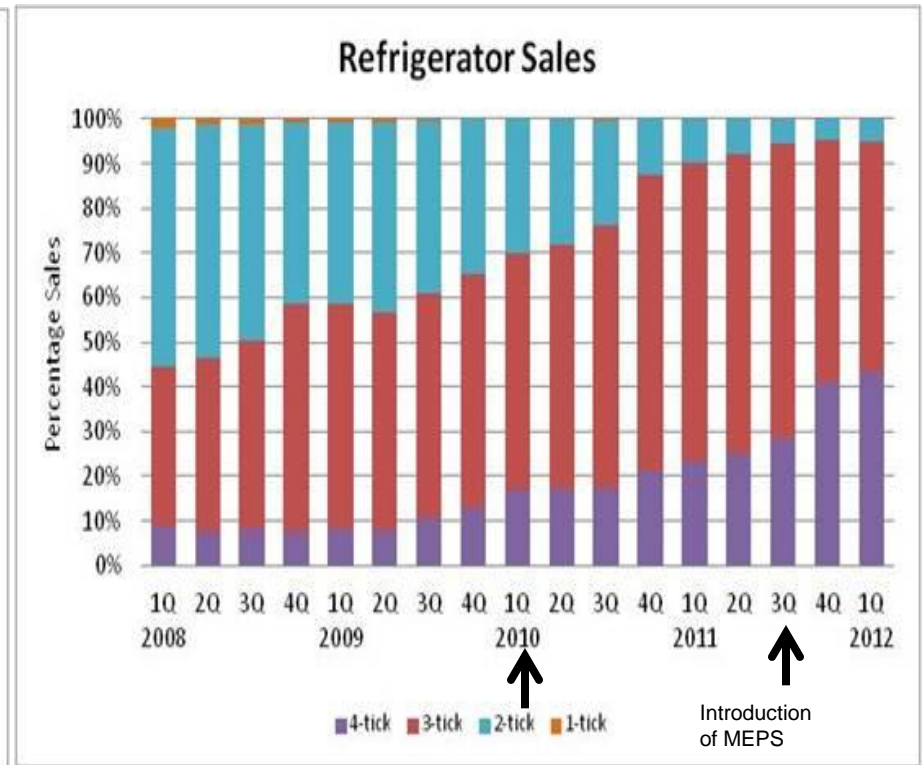
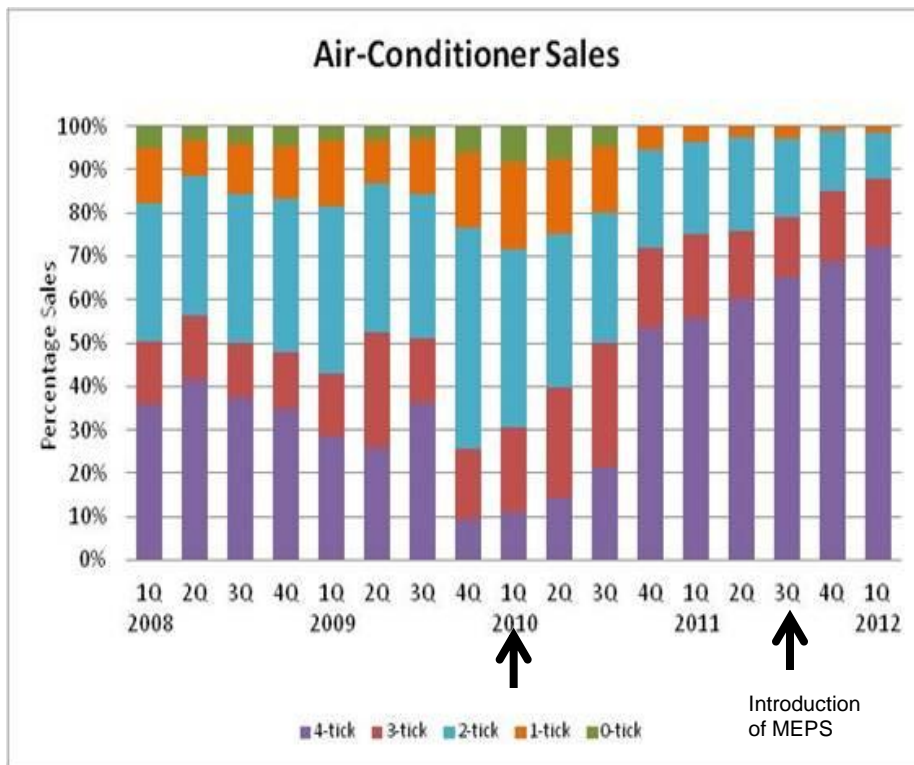
Market Impact of MELS and MEPS

Increase in number and proportion of registrations of more energy efficient models



Market Impact of MELS and MEPS

Proportion of energy efficient (3-tick and 4-tick) air-conditioners, refrigerators and clothes dryers sold has increased over the years



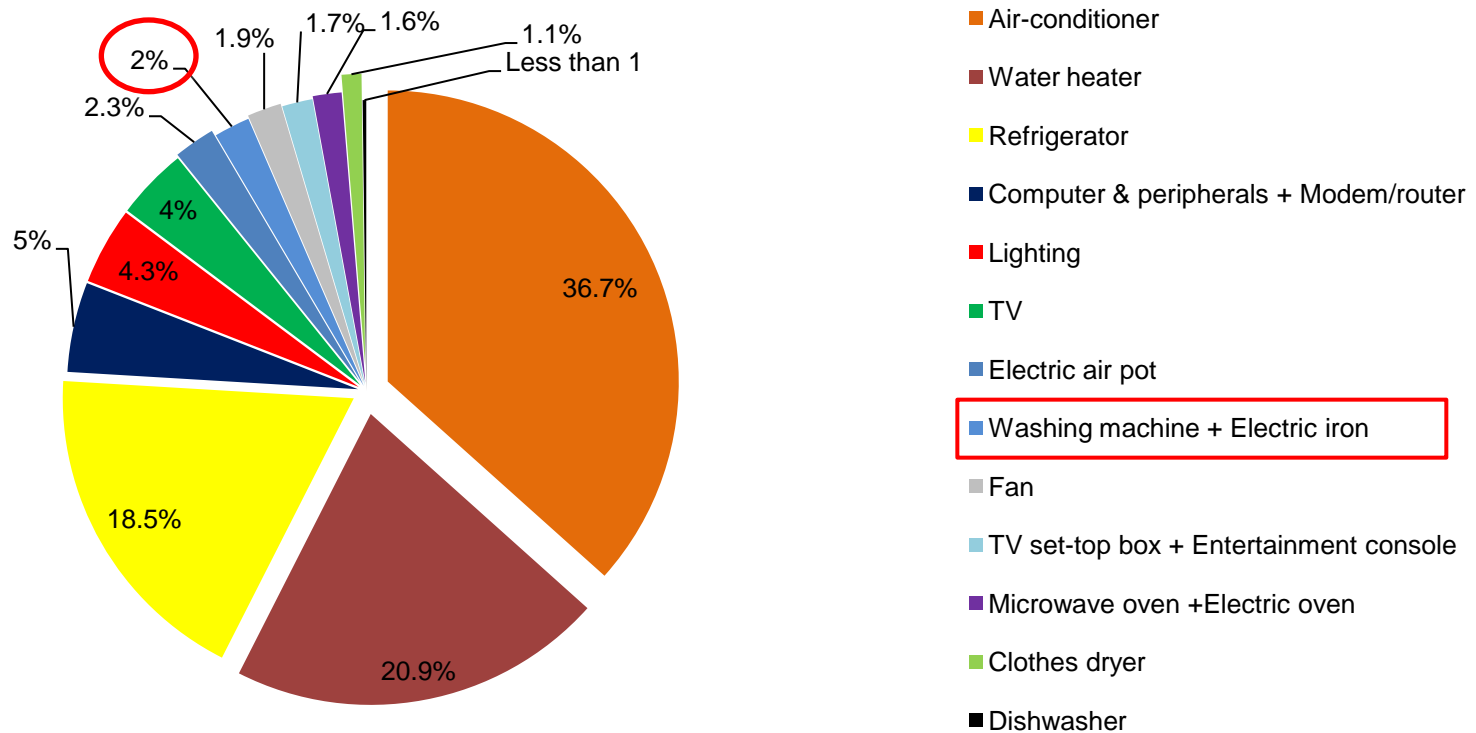
Energy Labelling and Minimum Performance Standards for Registrable Goods

Minimum Energy Performance Standards (MEPS)

- Improves average efficiency of household appliances by setting minimum energy efficiency standards
- Implemented in Sep 2011; tightened in Sep 2013
- Applicable to air-con and refrigerators
- Standards for clothes dryers in Apr 2014



Energy Labelling and Minimum Performance Standards for Registrable Goods



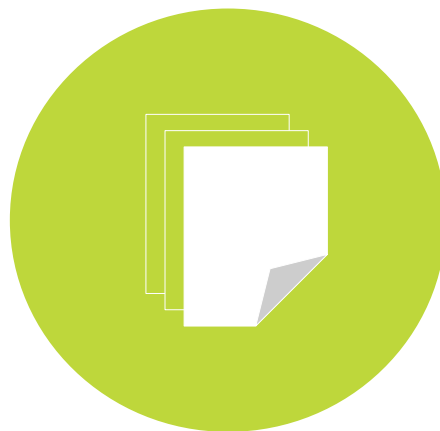
Share of energy consumption of various appliances in a household

Mandatory Energy Management Requirements

Industrial Sector



Appoint energy
manager



Monitor & report
energy use &
GHG emissions



Submit
energy efficiency
improvement plan



Industry sector

Large energy users

1. Manufacturing & related services
2. Supply of electricity, gas, steam, compressed air & chilled water
3. Water supply & sewage & waste management

Annual energy consumption



≥ 54 TJ/yr

Energy Conservation Act – Sub-sectors

Sub-sector	No. of premises
Petrochemicals & Refineries	34
Chemicals	28
Wafer Fabrication	23
Electronics	18
Food Manufacturing	18
Biomedical Manufacturing	17
Transport Engineering	17
Precision Engineering	15
Infrastructure	19
Others	16



Incentives for the Industrial Sector

- **Design for Efficiency Scheme (DfE)**
- **Energy Efficiency Improvement Assistance Scheme (EASe)**
- **Grant for Energy Efficient Technologies (GREET)**
- **Investment Allowance (IA)**
- **Energy Efficiency Financing**
- **Singapore Certified Energy Manager Training Grant**
- **Innovation & Capability Voucher (ICV)**
- **Capability Development Grant (CDG)**
- **Quality for Enterprises through Standards (QUEST)**

Energy Efficiency National Partnership

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Energy Management Systems

- Promote the adoption of Energy Management Systems among partner companies



EENP Learning Network

National Energy Efficiency Conference

- Provide partners with opportunities to learn and share energy efficiency ideas, strategies, technologies, best practices, standards and case studies

EENP Recognition Scheme

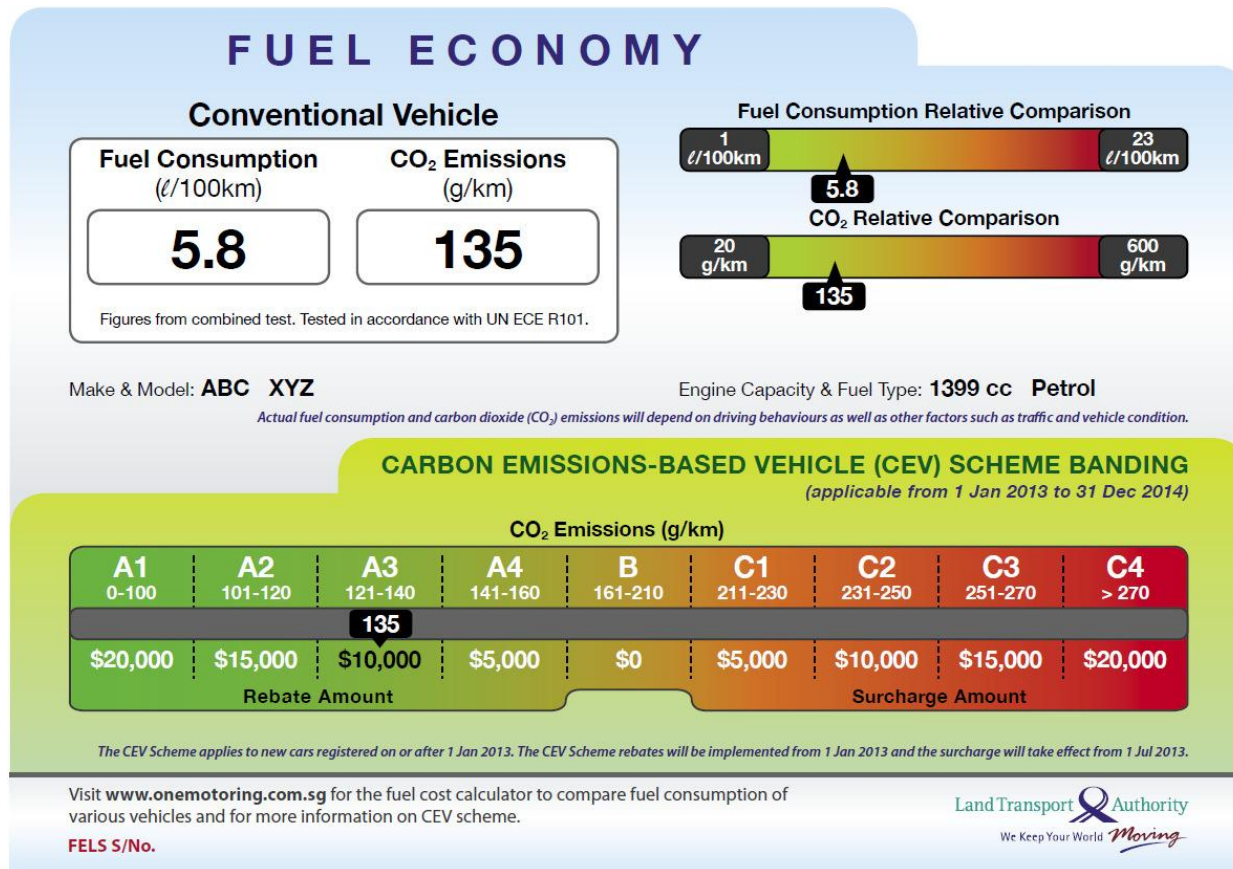
- Accord recognition to companies through national annual awards



Fuel Economy Labelling of Motor Vehicles

Fuel Economy Labelling Scheme

- Helps buyers to choose fuel-efficient vehicles



Energy Management Practices for Transport Facility Operators

Drafting of the Subsidiary Legislation is in Progress

Airport service operator, land transport operator or port service operator are to:

1. Appoint Energy Manager from among its employees
2. Submit reports on energy consumption, energy production and greenhouse gas emission
3. Submit energy efficiency improvement plans

More information at www.e2singapore.gov.sg

Our Environment

Safeguard • Nurture • Cherish