



Proposed Minimum Energy Performance Standards in Thailand

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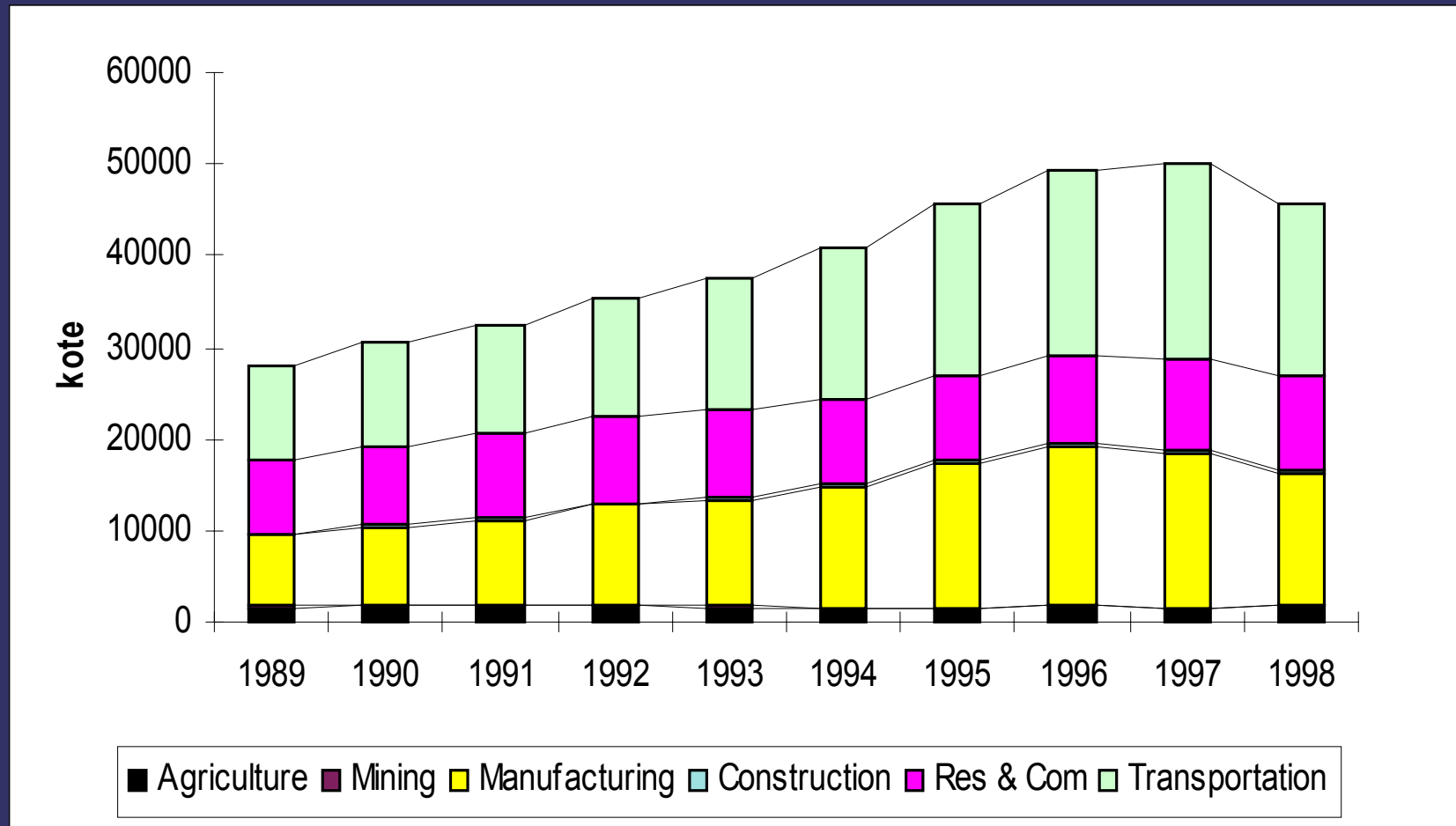
Presentation Topics

- Background Information
- MEPS Development procedures
- MEPS on electrical appliances
- Legal Process



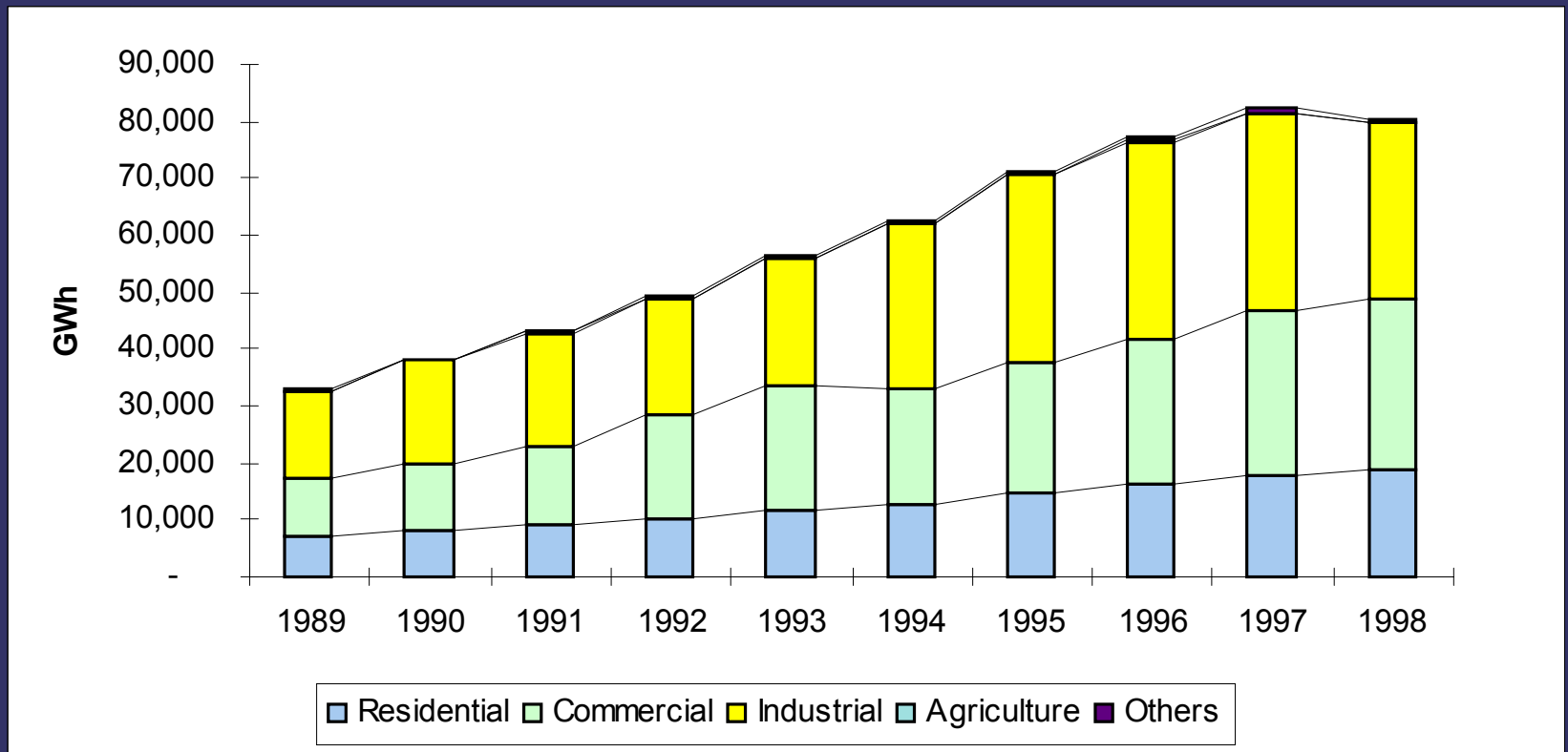
Background Information

Thailand Energy Consumption, 1989-1998



Source: DEDP, Thailand

Thailand Electricity Consumption, 1989-1998



75%-80% of electricity consumption in the industrial sector is from motor usage

Source: DEDP, Thailand



MEPS Development Procedures in Thailand

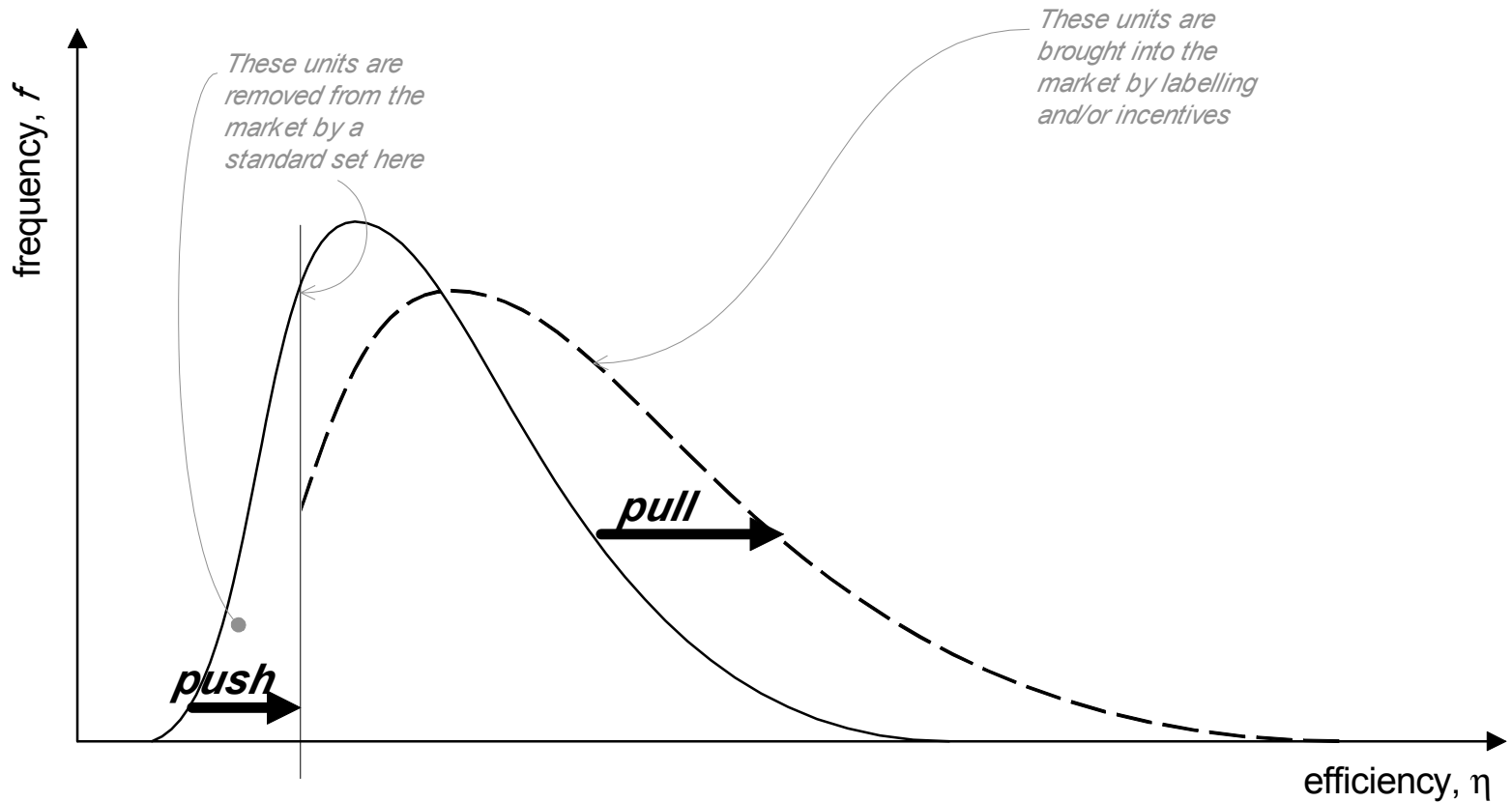
Developing Consensus

- Manufacturers involved in every step of the analysis through meetings and surveys
- Individual product sub-committees consulted
- Analysis performed by product experts
- Agreement on most major issues for all products
- Final steps include presenting proposed MEPS to manufacturers as seminars and recommendation to Steering Committee

Synergy with Existing Programmes

- Without the current programmes of EGAT, DEDP, MEA, PEA, TISI, etc, MEPS would not be possible
- Many of these programmes should continue in some modified form
- MEPS is considered a “push” programme, labelling and other types of promotion are considered “pull” mechanism

Synergy Strategy



Harmonisation

- Two main types of harmonisation: testing methodology and efficiency levels (eg MEPS)
- MEPS harmonisation would be preferable, but given different levels of development and cultural preferences, it is unlikely that the full MEPS harmonisation will occur in the near future
- Hence we recommend focusing upon testing methodology harmonisation
- It should be noted that many of TISI's test procedures are already harmonised with international testing standards



Summary of Proposed MEPS in Thailand

Products Coverage

- Refrigerators
- Air Conditioners
- Motors
- Compact Fluorescent Lamps (CFLs)
- Fluorescent Lamps (FLs)
- Ballast

Stages of MEPS Implementation

- MEPS can be implemented either as a one stage, one-off requirement, or can be used to periodically increase efficiency requirements
- Two or more stage MEPS implementation allows manufacturers to plan ahead, making investment and design decisions in the most economical way
- Most of the recommendations in Thailand use a two stage process for MEPS implementation

MEPS on Refrigerators

- Revise calculation method for determining energy consumption and potentially revise testing method to harmonise internationally
- Set long-term efficiency “target level”
- First stage of MEPS is target level plus 30% for one door and target level plus 50% for two door in 2004
- Second stage is target level plus 15% and 30% for one and two doors respectively tentatively in 2007
- Labelling be required and labels updated to reflect increased base efficiency

Air Conditioner MEPS

- Current EGAT Level 4 or EER = 9.6 for split units and Level 3 (EER = 8.6) for window units to take effect in 2003
- Second stage to be Current EGAT Level 4 for Window units in 2005
- Some changes to the testing methodology to better harmonise with international standards
- Labels will need to be updated and levels increased (eg 3 just meets MEPS, 4 & 5 better)
- Increase testing facility capacity
- Allow self certification/other lab testing as supplement to TISI

Motors MEPS

- Test procedure to IEEE B
- “Standard Efficiency” MEPS in 2002
- “Medium Efficiency” MEPS in 2005
- “High Efficiency” MEPS in 2008
- Promotion programme to help gain market acceptance

Ballasts MEPS

- Requiring the use of electronic ballasts, eg by eliminating magnetic from the market, is not appropriate as electronic ballasts are not always applicable and market is immature
- TISI has developed a standard, not a MEPS, for electronic ballasts - recommend supporting it
- Low loss (6 Watts or less) for magnetic ballasts is therefore recommended for 2002
- Electronic ballasts with a 4 Watt or less loss is recommended for 2002
- Same standard as Malaysia

CFL MEPS

- As soon as possible after MEPS approved
- Focused mainly on technical aspects to help ensure consumer acceptance, eg lifetime, power quality, lumen maintenance, etc
- Promotion and labelling to help educate consumers re quality issues

Fluorescent Tube MEPS

- Market has already achieved many of the benefits of MEPS through EGAT promotional program
- MEPS for tubes will mainly lock in benefits already gained
- Propose to have maximum of 36 Watt and 18 Watt consumption for 1200 mm and 600 mm tubes respectively
- Implement as soon as possible after MEPS approved



Impacts and Issues of MEPS

Impact Analyses

- Impacts to consumers using benefit-cost ratio
- Impacts to manufacturers (Government Regulatory Impact Model--GRIM)
- Impacts to the nations
 - energy savings
 - environmental benefits

MEPS - Impacts and Issues

- No significant issues if proposed schedule is followed
- some manufacturers have ready access to more efficient products e.g. air conditioners
- Promotion programme would be very helpful in building support
- Must enhance testing capacity
- Enforcement may be an issue as it is today

Conclusion

- Recommended MEPS provide cost-effective energy savings and environmental improvement
- Manufacturer impacts minimised where possible
- Harmonisation with international standards proposed, mainly through modifications to testing procedures



Legal Process

Development Process

- Feasibility Study on MEPS
- Accepted by National Energy Policy Office (NEPO)
- NEPO -----> National Energy Policy Council
- Issuing the Ministerial Order
- Implementation