



**Asia-Pacific
Economic Cooperation**

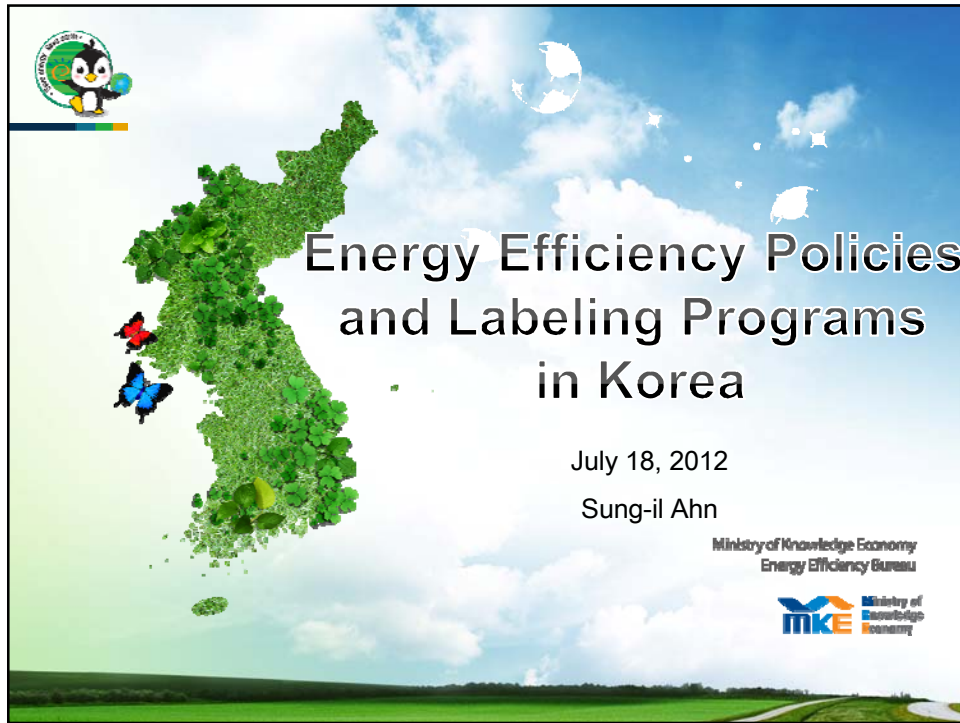
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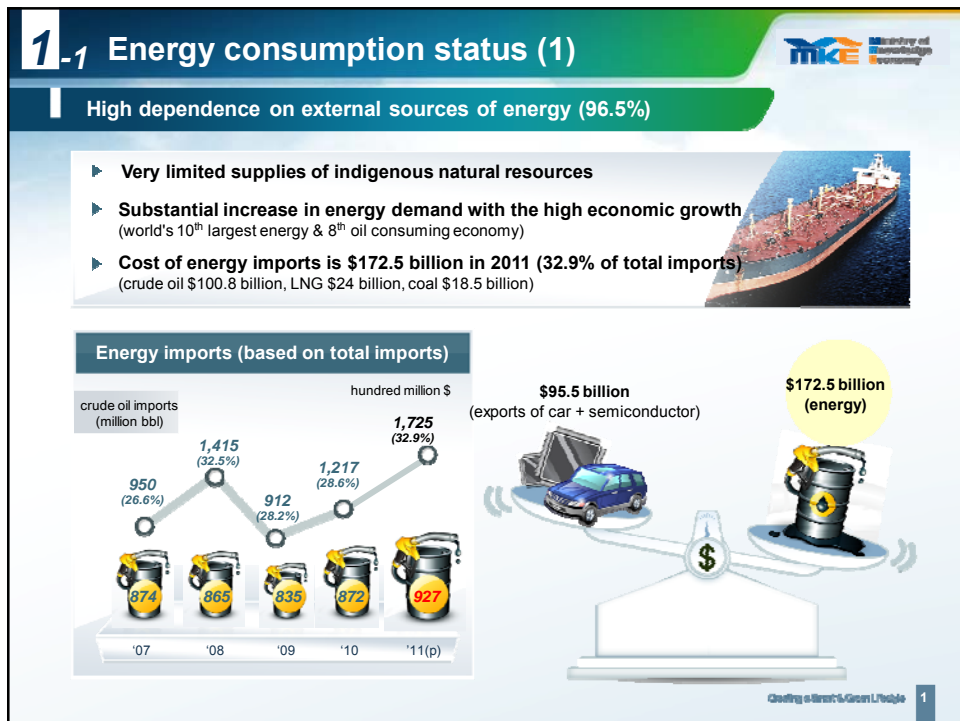
Energy Efficiency Policies and Labeling Programs in Korea

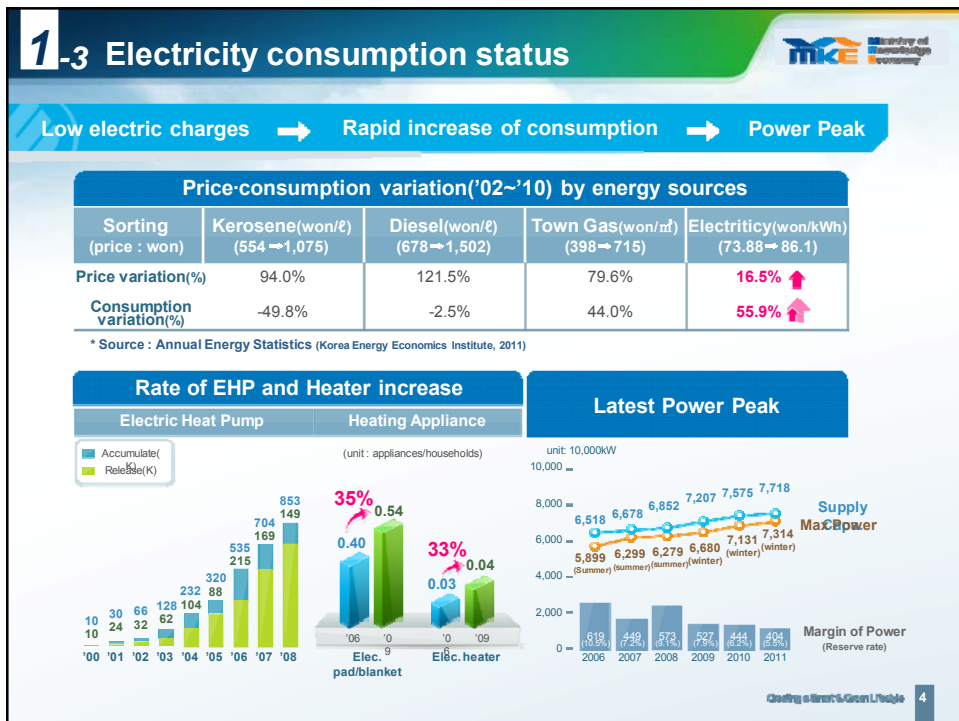
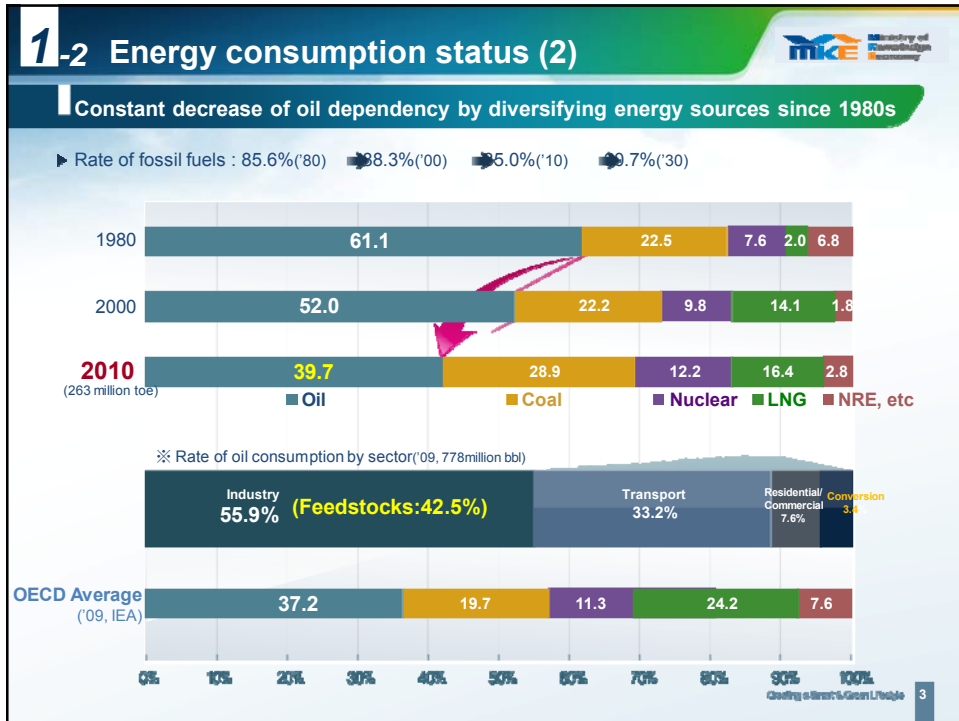
Submitted by: Korea

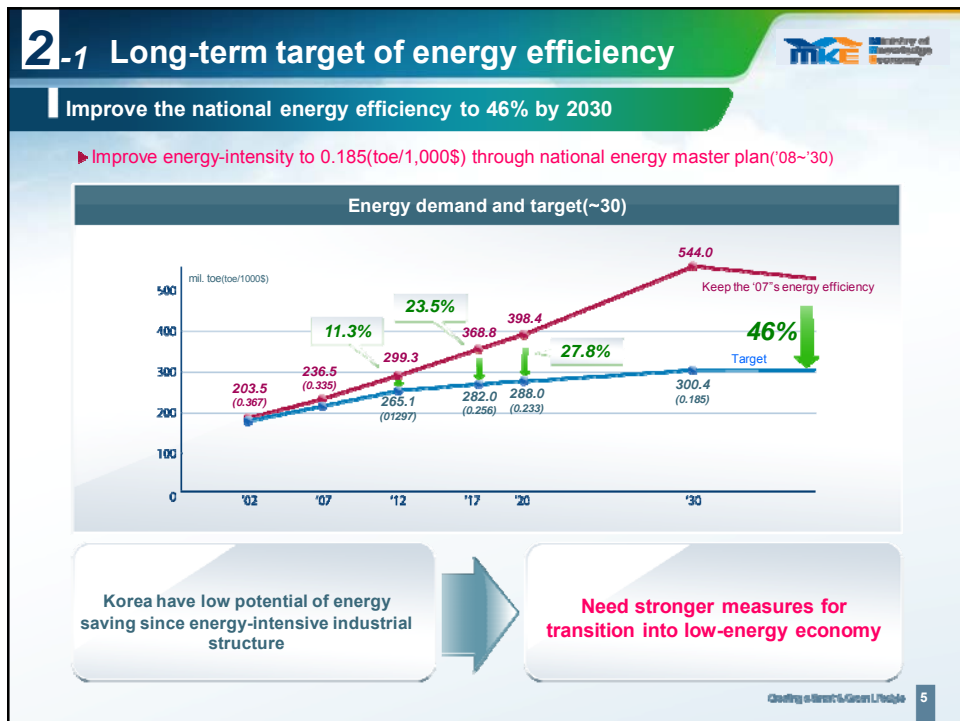


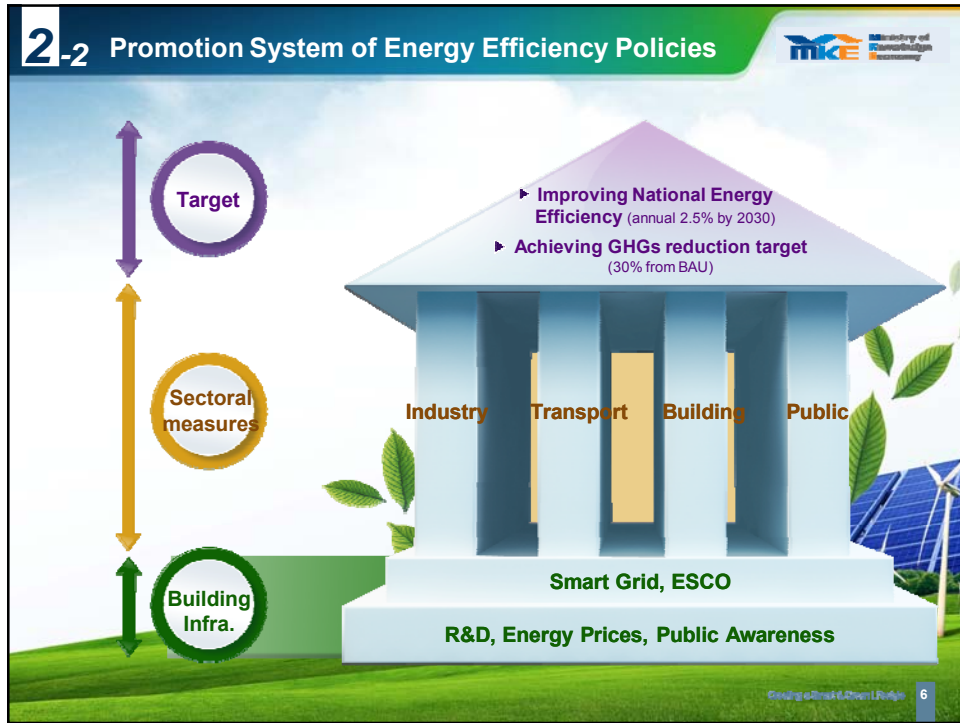
**Aligning Energy Efficiency Regulations for
ICT Products: Developing a Strategic
Approach
Seoul, Korea
18 July 2012**











2-4 National vision & goal for Green Growth 

Realizing Global-leading Green Economy

Main Goal

- Establish low carbon economy and society
- Foster green technology & business
- Respectful Green Korea

10 Major task

- 1 Realizing energy independence
- 2 Fostering green technology and business
- 3 Greening existing industry & business
- 4 Vitalizing green finance
- 5 Operating Eco-friendly tax system
- 6 Creating green jobs & capacity building
- 7 Greening national territory
- 8 Responding to climate change
- 9 Green innovation of life
- 10 Realizing global green growth exemplary economy

Long-term green growth master plan **Green Growth Strategy and 5-year Plan** ('09.7)

- Basis : Framework Law on Low Carbon Green Growth (article 9)
- Invest 107 trillion KRW ('09~'13)
※ Almost 2% of annual GDP (*UN recommendation : 1% of GDP to green investment)

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 **Ministry of Knowledge Economy
Energy Efficiency Bureau**

Energy Standard and labeling Programs

3-1 3 Energy Efficiency Programs

Energy efficiency labeling program

Implementation('92)

35 items including refrigerator etc

High efficiency certification program

Implementation('96)

41 items including LED etc

o-standby program

Implementation('99)

22 items including Settop box etc

Main performances of energy efficiency labeling program

Reduce power consumption **60%** per year

[KWh/yr]

1996 2010

Reduce power consumption **21%** per year

[Wh/kg]

2004 2010

Refrigerator Electromotor

Certification of high efficiency equipment (support market entry)

➡

energy efficiency labeling program (support the market consolidation)

➡

lowest energy efficiency standard (throw out the low-energy efficiency appliances)

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3-2 World-class Korean appliances for EE

Refrigerator

▶ Comparison of Electrical Consumption(kWh/yr-1t)
- EU > Australia > Canada > SA > **Korea(best)**

<Source : IEA 4E Mapping & Benchmarking Annex>

Air Conditioner

▶ Comparison of Cooling Efficiency(Energy Efficiency Ratio)
- **Korea(best)** > Canada > Australia > EU

<Source : IEA 4E Mapping & Benchmarking Annex>

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3-3 Expansion and reinforcement for EE

Expansion of items ('12~'13)

- ▶ **EE labeling program(7)** : TV, Transformer, Window, EHP, dehumidifier, Showcase, Sever & Storage
- ▶ **High-efficient certification program(6)** : Gas Heat Pump, tubular LED lamp, LED street lamp, LED flood lamp, LED tunnel lamp, ESS(energy storage system)
- ▶ **E-standby(2)** : digital converter, wire&wireless line sharer

Reinforcement of standards

- ▶ **Appliances** : strengthen standard to retain 1st grade product rate within 10%
 - * Electric cooker, Washing machine, Kimchi refrigerator, Dishwasher etc
- ▶ **Lamps** : phase out incandescent lamp('13) and raise LED luminance efficiency
- ▶ **Gas heaters** : strengthen standard by introducing test method with partial loads
- ▶ **Industry & building** : strengthen MEPS and high-efficient certification standards
 - * Electrical Motor, Transformer, UPS, Boiler, Window etc

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3-4 Pathway for 0.5W E-standby

Items and Standards

- ▶ Phase in 0.5W E-standby standard by 2015
 - '12) monitor, scanner, dishwasher → '13) printer, copier, dish dryer → ('14) modem, cassette → '15) hand dryer, electric cooker
- ▶ Expand items and Strengthen standards
 - * New items : digital converter, wire/wireless line sharer
 - * Reinforcement : settop box, modem, home gateway
- ▶ Improve test method of computer and monitor based on TEC of USA Energy Star
- ▶ Building code's revision for built-in appliance and settop box

Deployment of auto-standby cutoff device

- ▶ Existing building : deploy automatic standby cutoff devices
- ▶ New building : raise mandatory install rate of standby cutoff devices (Currently 30%)

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3-5 Energy Frontier Program

Introduction of 'ENERGY-FRONTIER' for Appliance('12)

ENERGY - FRONTIER

Set-up target efficiency 30~50% higher than 1st grade

If any appliance is over target efficiency after a given period, it can be rewarded with incentives

Air Conditioner, Refrigerator, TV, Washing machine

International Cooperation

- ▶ Cooperation for MRA(mutual recognition agreement) based on SEAD initiatives under CEM(clean energy ministerial)
* SEAD : Super-efficient Equipment and Appliance Deployment)
- ▶ Cooperation for improving test methods and standards based on IEA 4E, APEC EGEE&C, ISO&IEA etc

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"Save energy, Save earth"

Thank you



Ministry of Knowledge Economy