

Thailand Energy Efficiency Development Plan

(2015 - 2036)

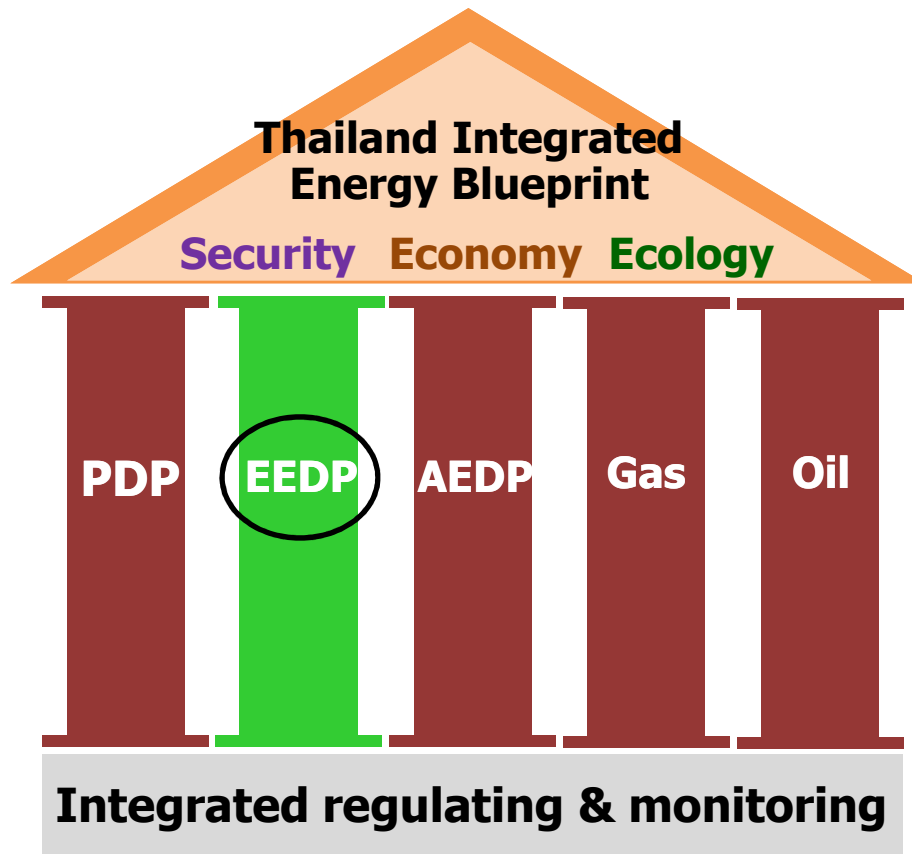


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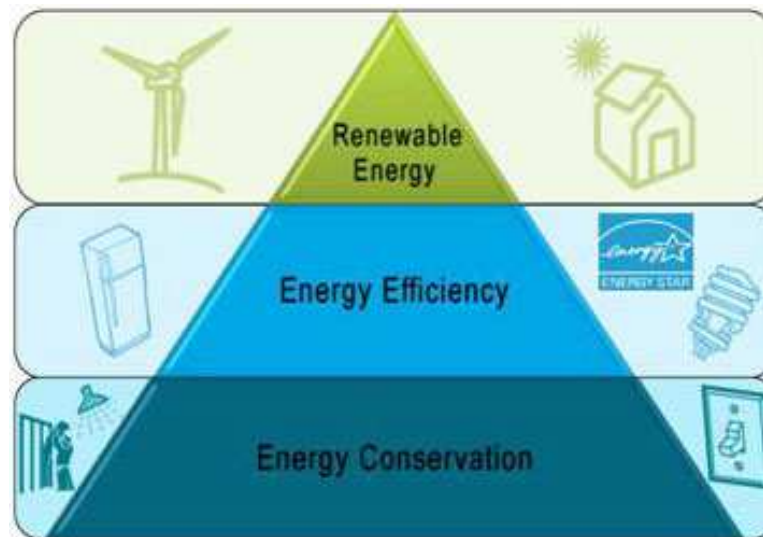
Thailand Integrated Energy Blueprint



- 1) Security** – to create stability for national energy need/demand and support the National Economic and Social Development Plan by distributing fuel to reduce risk on depending too much on a fuel's kind
- 2) Economy** – to create reasonable energy cost for both people and business, which will not be hurdle for long-term national development, including to promote energy efficiency
- 3) Ecology** – to reduce effects on environment and community

Thailand Energy Efficiency Development Plan 2015 - 2036

The Energy Efficiency Development Plan (EEDP) is now being drafted in order to conform to the Thailand Power Development Plan (PDP 2015) and achieve the National Agenda.



Energy Saving Targets in the past few years

- **2010; Ref. from the Agreement reached by APEC Leaders in 2007**

A Target to reduce Energy Intensity by 25% in 2030, compared with that in 2005

- **2011**

A Target to reduce Energy Intensity by 25% in 2030, compared with that in 2010

- **2014**

A Target to reduce Energy Intensity by 30% in 2036, compared with that in 2010

EEDP 2015 Saving Target

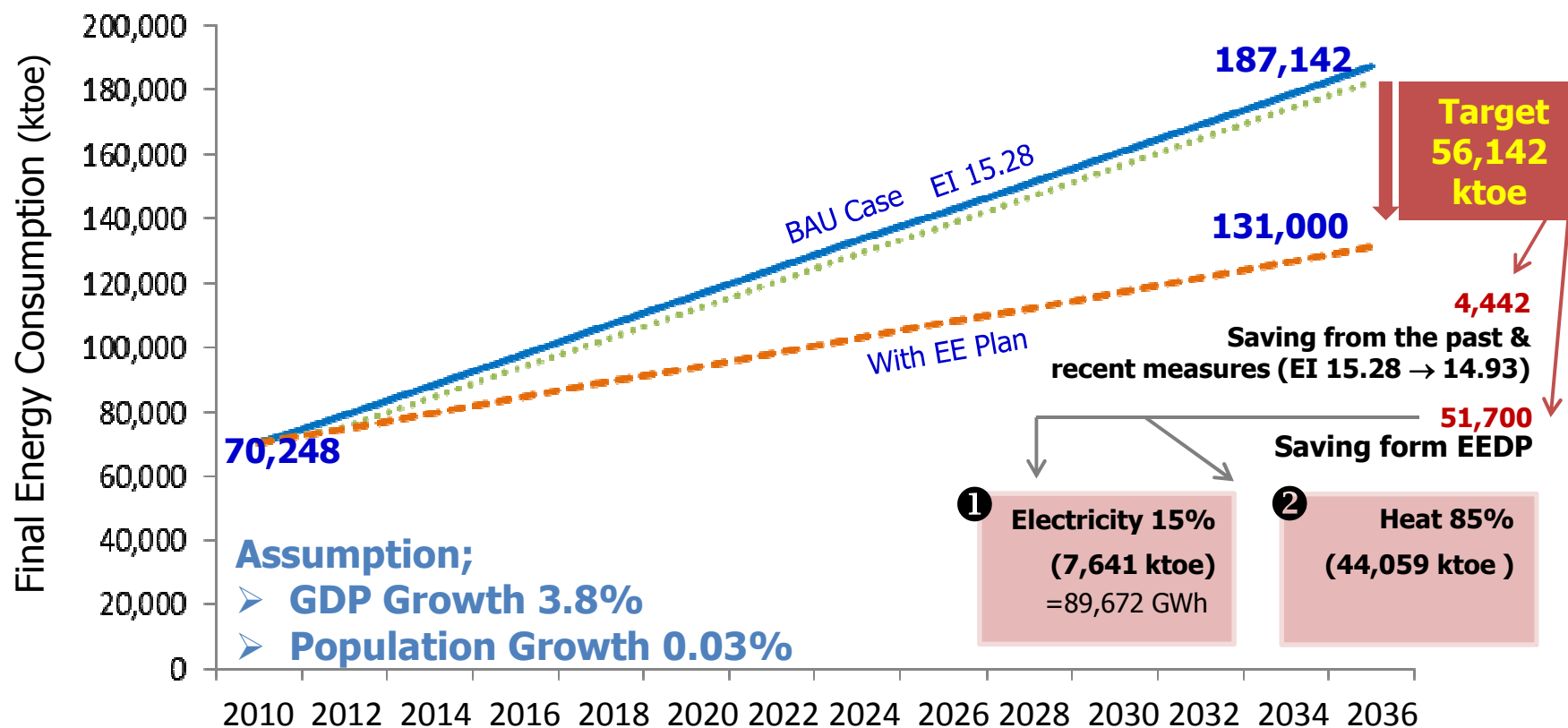
- ❖ **To reduce energy intensity (EI) by 30% in 2036, in comparison with 2010**
- ❖ **To accomplish the APEC agreed target aiming to reduce EI by 25% in 2030 when compared with 2005**
- ❖ **To achieve the GHG emission reduction target according to the pledge submitted to UNFCCC in COP20, which aims to reduce 7% from transport and energy sector in 2020, compared with 2005**



EEDP 2015 Saving Target

**A Target to reduce Energy Intensity by 30% in 2036,
compared with that in 2010**

EI (2010) actual 15.28 ktoe/billion baht	EI (2013) actual 14.93 ktoe/billion baht	EI (2030) forecast 11.0 ktoe/billion baht	EI (2036) forecast 10.7 ktoe/billion baht
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Strategies to achieve the target

① Compulsory Measures

- 1.1 Enforcement of energy conservation standards in designated factories and buildings
- 1.2 Building Energy Code (BEC) on the new buildings
- 1.3 Energy labeling on equipment/appliances (HEPS & MEPS)
- 1.4 Enforcing of Energy Efficiency Resource Standard (EERS)

② Voluntary Measures

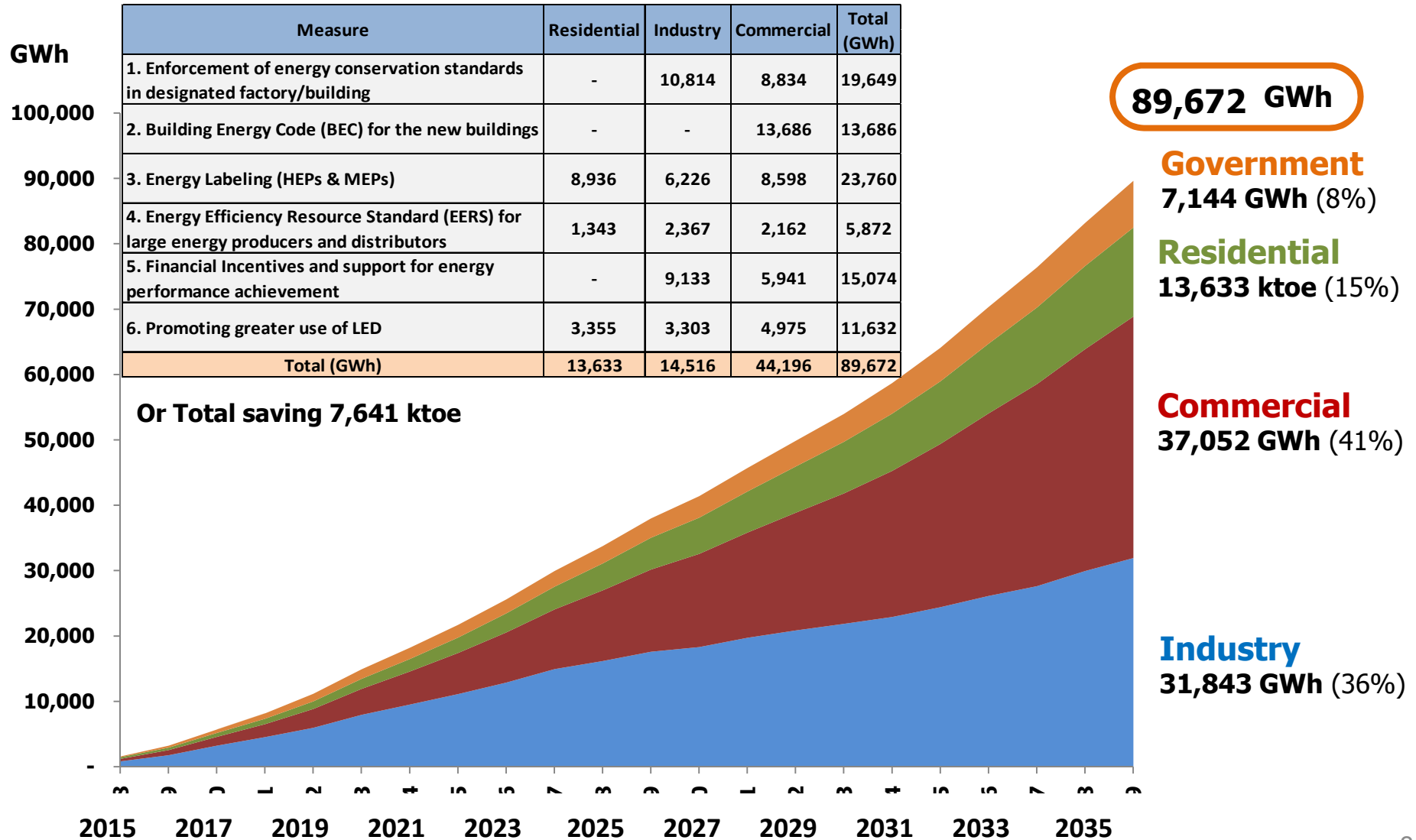
- 2.1 Supporting financial tools to hasten the equipment changing
- 2.2 Promoting greater use of LED by price mechanism
- 2.3 Energy saving measures in transport sector

③ Complementary Measures

- 3.1 Supporting the human resource development on energy conservation
- 3.2 Supporting the creation of public awareness and behavioral change
- 3.3 Supporting the energy efficiency technology research and development

EEDP 2015 Target by Economic sectors

Electricity saving



EEDP 2015 Target by Economic sectors

Heat/Fuel saving

Measure	Transport	Industry	Residential	Commercial	Total (ktoe)
1. Enforcement of energy conservation standard in designated factory/building	-	3,467	-	15	3,482
2. Building Energy Code (BEC) for the new buildings	-	-	-	-	-
3. Energy Labeling (HEPs & MEPs)	-	219	991	915	2,125
4. Energy Efficiency Resource Standard (EERS) for large energy producers and distributors	-	-	-	-	-
5. Financial Incentives and support for energy performance achievement	-	8,117	-	123	8,239
6. Promoting greater use of LED	-	-	-	-	-
7. Energy saving measures in transport sector	30,213	-	-	-	30,213
Total (ktoe)	30,213	11,802	991	1,053	44,059

ktoe
50000
45000
40000
35000
30000
25000
20000
15000
10000
5000
0

2015 2017 2019 2021 2023 2025 2027 2029 2031 2033 2035

**Total saving in 2036
= 44,059 ktoe**

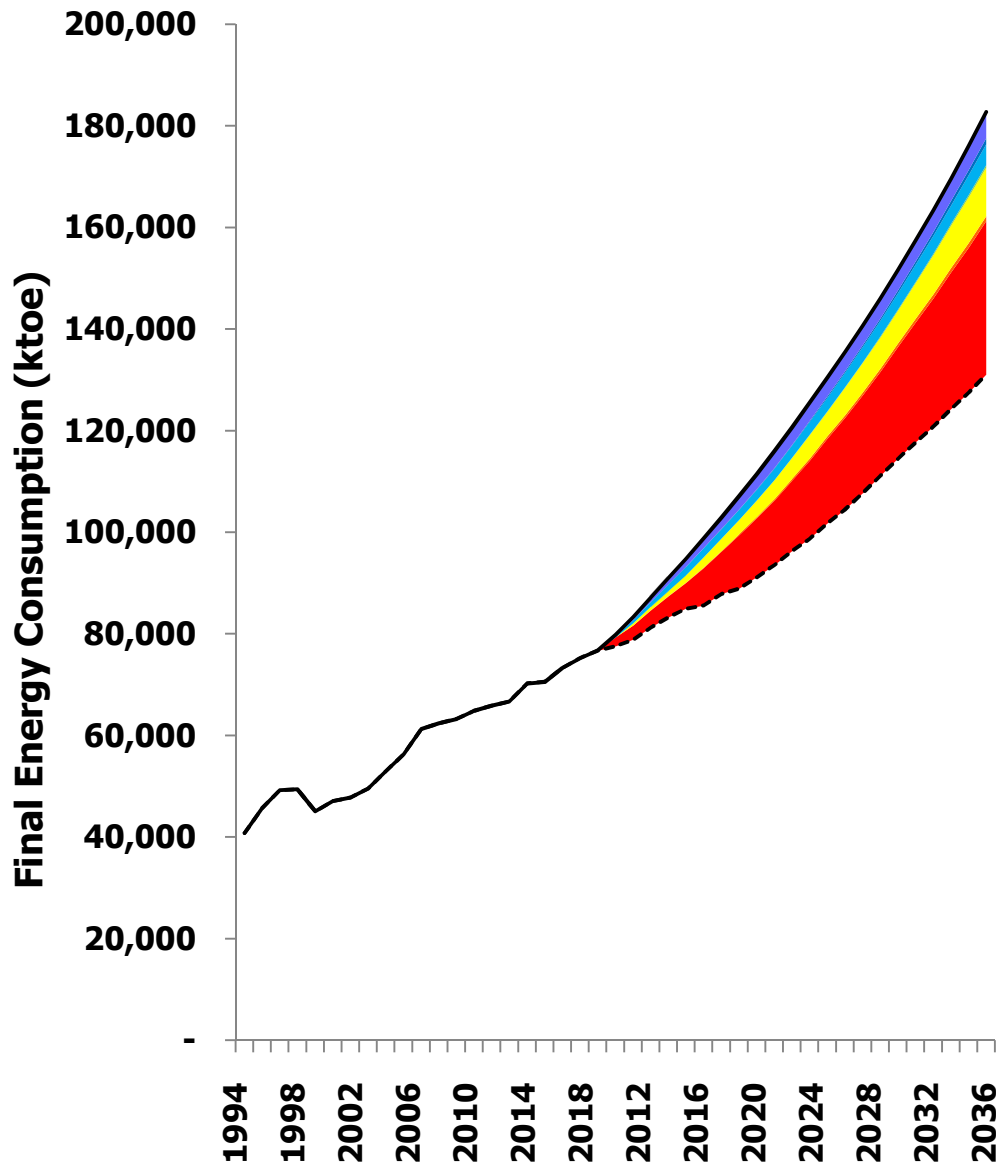
Transport
30,213 ktoe (69%)

Industry
11,802 ktoe (27%)

Residential
991 ktoe (2%)

Commercial
1,053 ktoe (2%)

Summary of EEDP 2015 Target by Measures

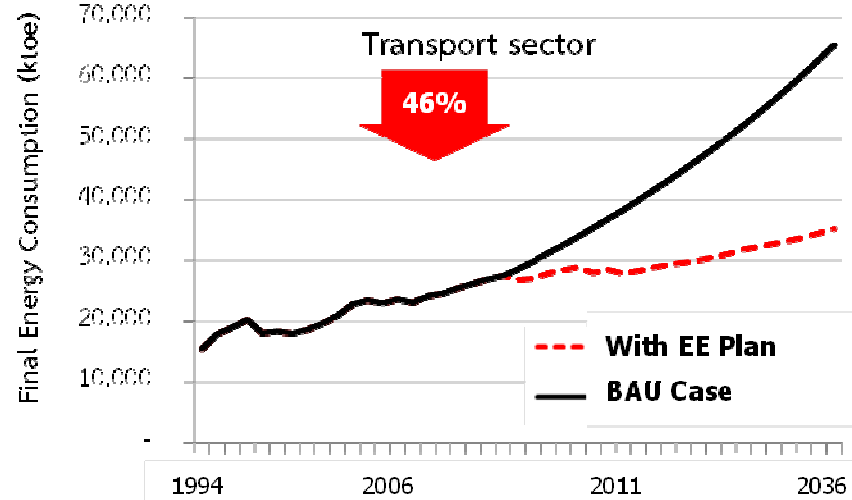
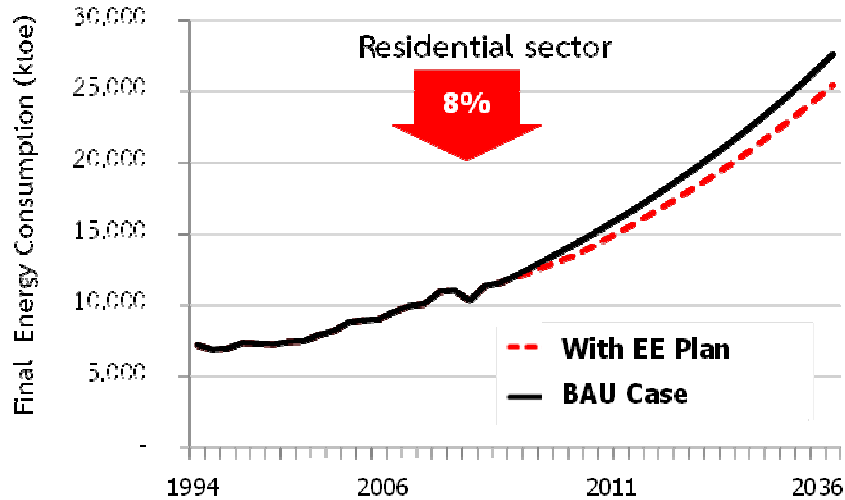
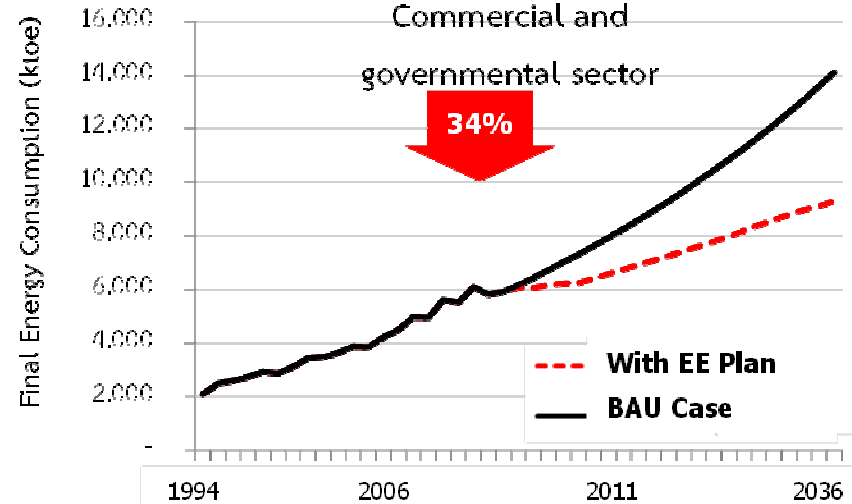
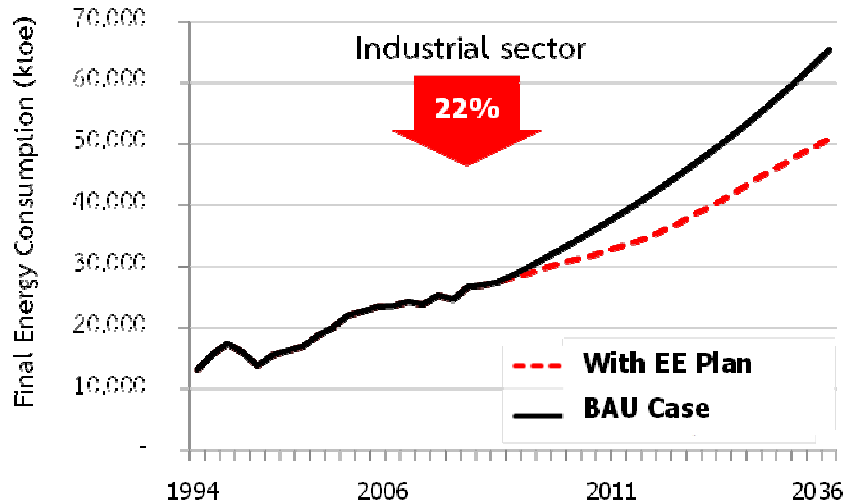


Expected Energy Saving by Economic sector		Total	
		(ktoe)	(%)
EE1	Enforcement of energy conservation standard in designated factory/building	5,156	10%
EE2	Building Energy Code (BEC) for the new buildings	1,166	2%
EE3	Energy Labeling (HEPs & MEPs)	4,149	8%
EE4	Energy Efficiency Resource Standard (EERS) for large energy producers and distributors	9,524	18%
EE5	Financial Incentives and support for energy performance achievement	991	2%
EE6	Promoting greater use of LED	500	1%
EE7	Energy saving measures in transport sector	30,213	58%
Total (ktoe)		51,700	100%

Economic Sector

1. Industry
2. Commercial
3. Residential
4. Transportation

Targets in Economic Sectors in 2036



Strategies to achieve the target

① Compulsory Measures

1.1 Enforcement of energy conservation standards in designated factories and buildings

- **Intensively supervising the implementation of buildings/factories regarding to the ministerial regulations and also forcing the legal punishment**

1.2 Building Energy Code (BEC) on the new buildings

- **Newly-built/modified buildings over 2,000 M² shall be designated following the ministerial regulations, both standard and criteria**



Strategies to achieve the target

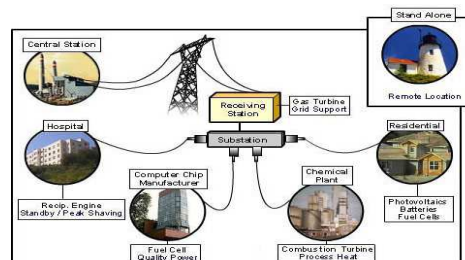
① Compulsory Measures

1.3 Energy labeling on equipment/appliances (HEPS & MEPS)

- **Set the High Energy Performance Standard (HEPS) to promote the widespread use of the equipment**
- **Set the Minimum Energy Performance Standard (MEPS) to prevent the importing of low efficiency performance equipment**

1.4 Enforcing of Energy Efficiency Resource Standard (EERS)

- **Regulating utilities or large energy producers/ distributors to help end-users to save energy in the percentage of their usual or expected electricity use**



② Voluntary Measures

2.1 Supporting financial tools to hasten the equipment changing

- Subsidy
- Soft Loan
- ESCO Fund
- Tax Incentive



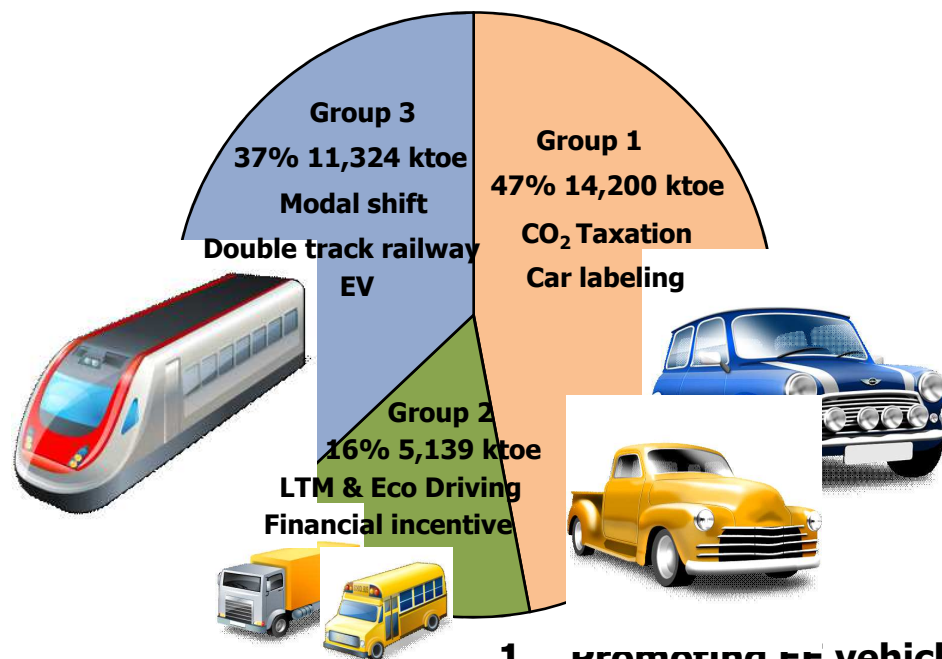
2.2 Promoting greater use of LED by price mechanism

- LED can reduce electricity price about 30-85% when compared to general bulbs and also environmental friendly by mercury free.



② Voluntary Measures

2.3 Energy saving measures in transport sector



Classified into three Groups;

Group 1 Promoting high efficient standard vehicles and EE labeling

Group 2 Increasing energy efficiency in trucks and buses by using management system and financial incentives

Group 3 Developing infrastructure and fuel price policy



**10
Measures;**

1. Promoting EE vehicles using CO₂ tax and EE labeling
2. Promoting EE labeling for tire
3. Logistics and transport management
4. ECO Driving
5. ESCO revolving fund for EE in transport sector
6. Energy saving subsidy in transport sector (SOP+DSM)
7. Developing transport infrastructure; Mass rapid transit
8. Developing transport infrastructure; Double track railway
9. Energy saving from Diesel price policy
10. Energy saving from using electric vehicles (EV)

Thank you for your kind attention



Energy Policy
and Planning Office

MINISTRY OF ENERGY