TGP-EEDP

Thai - German Programme on Energy Efficiency Development Plan

"Energy Efficiency Indicators:

What can they do for energy efficiency policy?"

Energy Policy and Planning Office
MINISTRY OF ENERGY

giz

Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

Thai-German Programme on EEDP

- Objective:
  Collaborate on the implementation of the Thai Energy Efficiency Development Plan
  ….. based on incentives and standards which will have a direct impact on CO_2 emission reduction

- Duration:
  3 years (**2012-2015**)

- Financier:
  The **German Ministry for Environment**, Nature Conservation and Nuclear Safety

Thai-German Programme on EEDP

- Main project partners:
  - Ministry of Energy, Energy Policy and Planning Office (**EPPO**)
  - Deutsche Gesellschaft fur Internationale Zusammenarbeit (**GIZ**)

- Other project partners:
  - Thailand Greenhouse Gas Management Organization (**TGO**)
  - The Department of Alternative Energy Development and Efficiency (**DEDE**)

- National Project Supporting Partner:
  - Joint Graduate School of Energy and Environment (**JGSEE**), KMUTT

- International project supporting partner:
  - Wuppertal Institute (**WI**), Germany

TGP-EEDP: 4 workpackages

DATA

1

Energy Efficiency Indicators (EEI)

To review data and develop additional energy efficiency indicators

STANDARDS

2

Energy Efficiency Resource Standards (EERS)

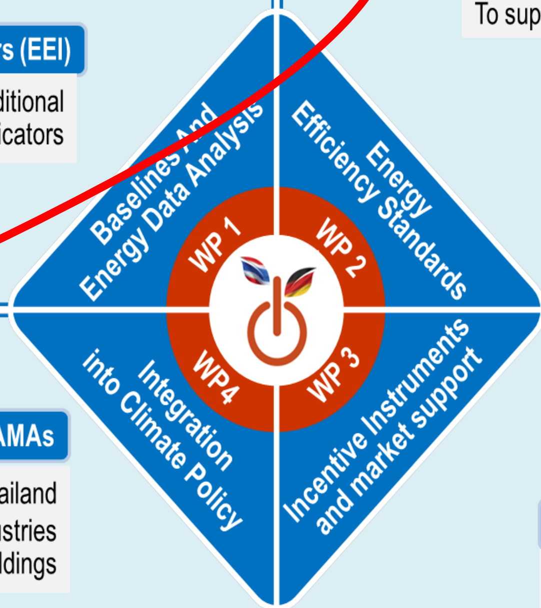
To introduce and review EERS for utilities

Building Energy Code (BEC)

To support in developing a timeline of gradually tightening of BEC

Energy Performance Standard

To contribute to the development of energy performance standards based on Specific Energy Consumption (SEC), in line with the EPC scheme



INCENTIVES

3

Standard Offer Programme (SOP)

- To introduce international experiences on SOP
- To support SOP pilot project

ESCO

To review ESCO business and provide trainings for further development/improvement

Building Energy Code (BEC)

Develop a financial tool for higher performance BEC to support the uptake of BEC is developed.

CLIMATE POLICY

4

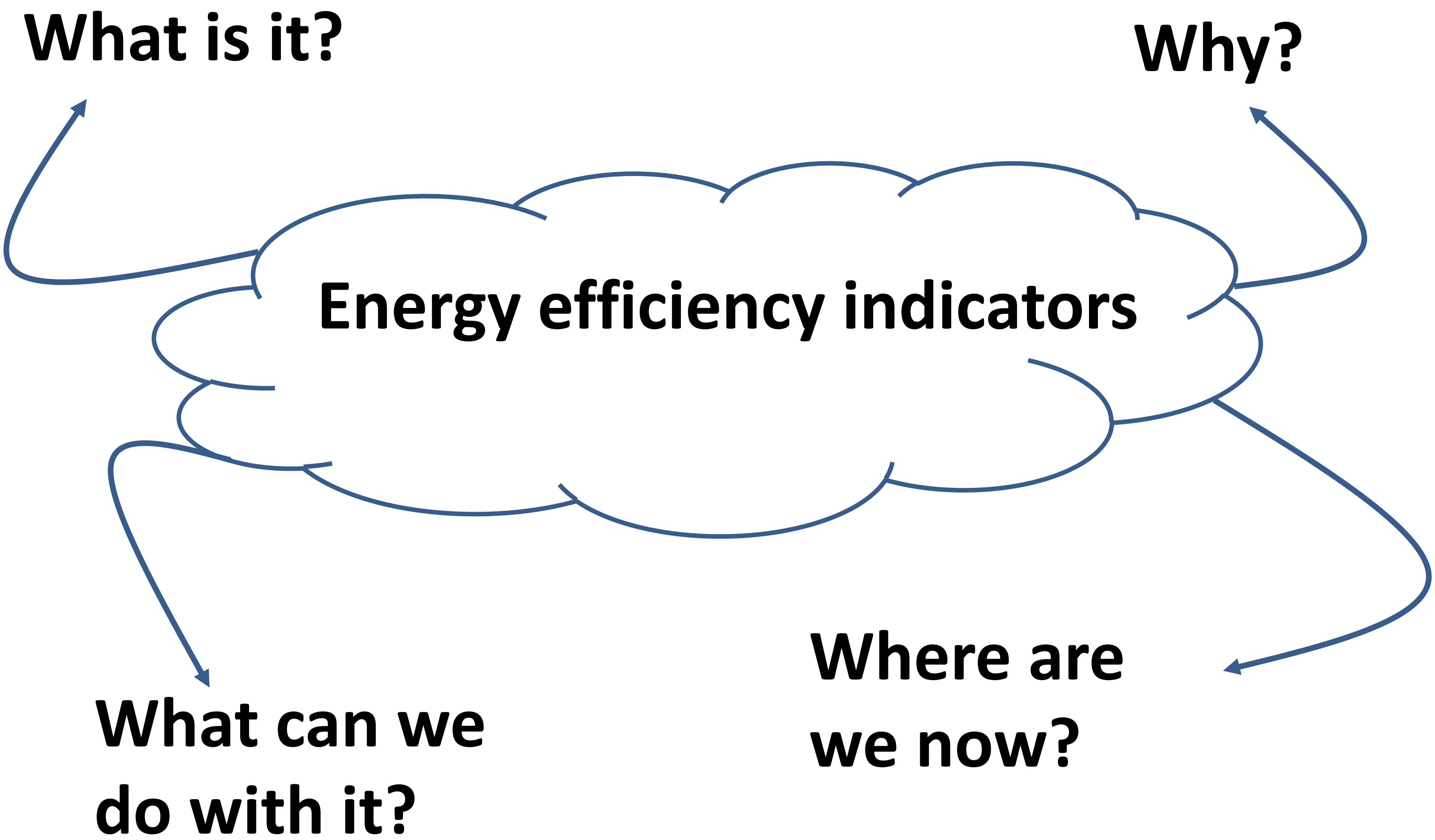
Energy Efficiency NAMAs

To support NAMA development in Thailand will focus on energy efficiency in industries and commercial buildings

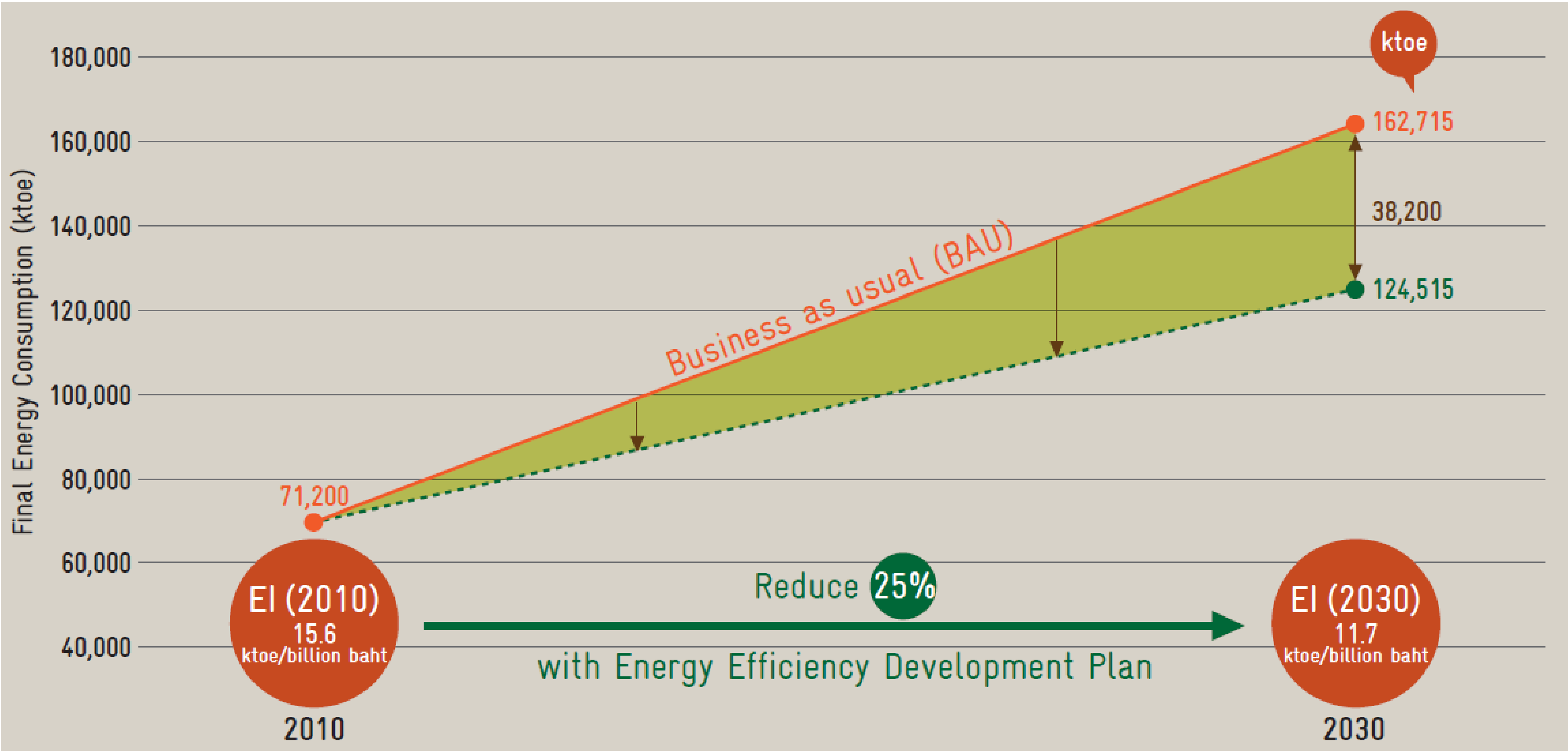
Remark

- Not yet started
- Quarter done
- Half done
- Three quarter done
- Task done

Energy Efficiency Indicators??



What is it: "Energy Efficiency Indicators"?



- Energy Intensity (on a national, overall level), is an example of an Energy Indicator

What is it: “Energy Efficiency Indicators”?

$$\text{Energy Intensity}_{\text{Thailand}} = \frac{\text{Final Energy Consumption}_{\text{Thailand}}}{\text{GDP}_{\text{Thailand}}}$$

Year 1: $$\text{EI } 10 = \frac{\text{FEC: } 20}{\text{GDP: } 2}$$

Year 1 + x: $$\text{EI } 7.5 = \frac{\text{FEC: } 30}{\text{GDP: } 4} =$$ Energy Efficiency?

What is it: "Energy Efficiency Indicators"?

$$\text{Energy Intensity}_{\text{Thailand}} = \frac{\text{Final Energy Consumption}_{\text{Thailand}}}{\text{GDP}_{\text{Thailand}}}$$

Changes in lifestyle: bigger house per household

New non-energy intensive industries

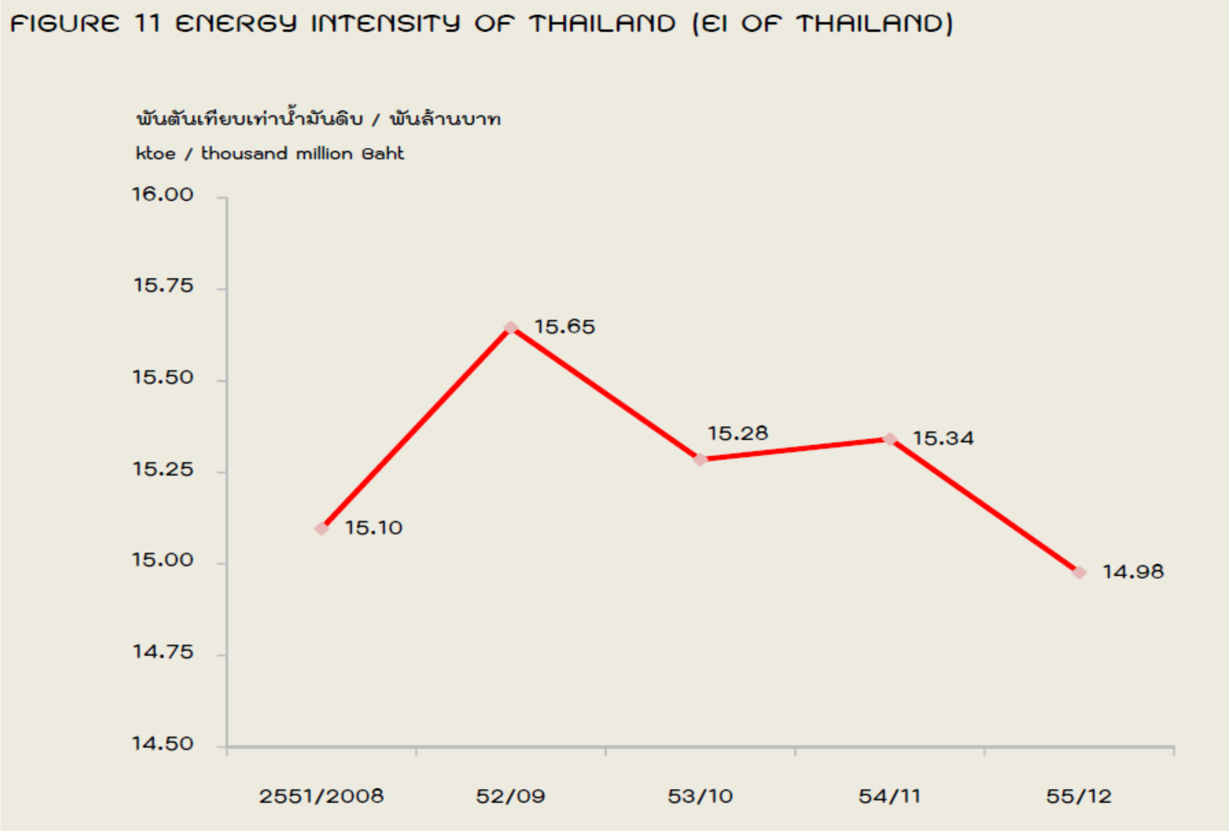
$$\text{EI } 7.5 = \frac{\text{FEC: } 30}{\text{GDP: } 4}$$

Economic recession

Changes in lifestyle: more people own car

Energy intensive industries move to cheap labour country

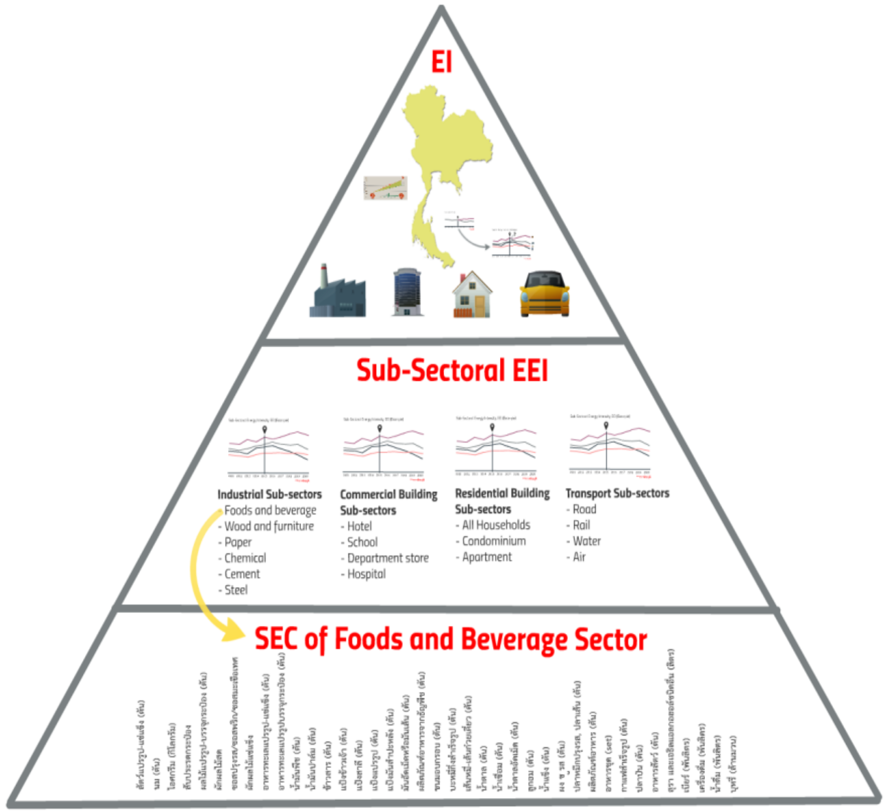
Why Energy Efficiency Indicators?



(DEDE, 2012)

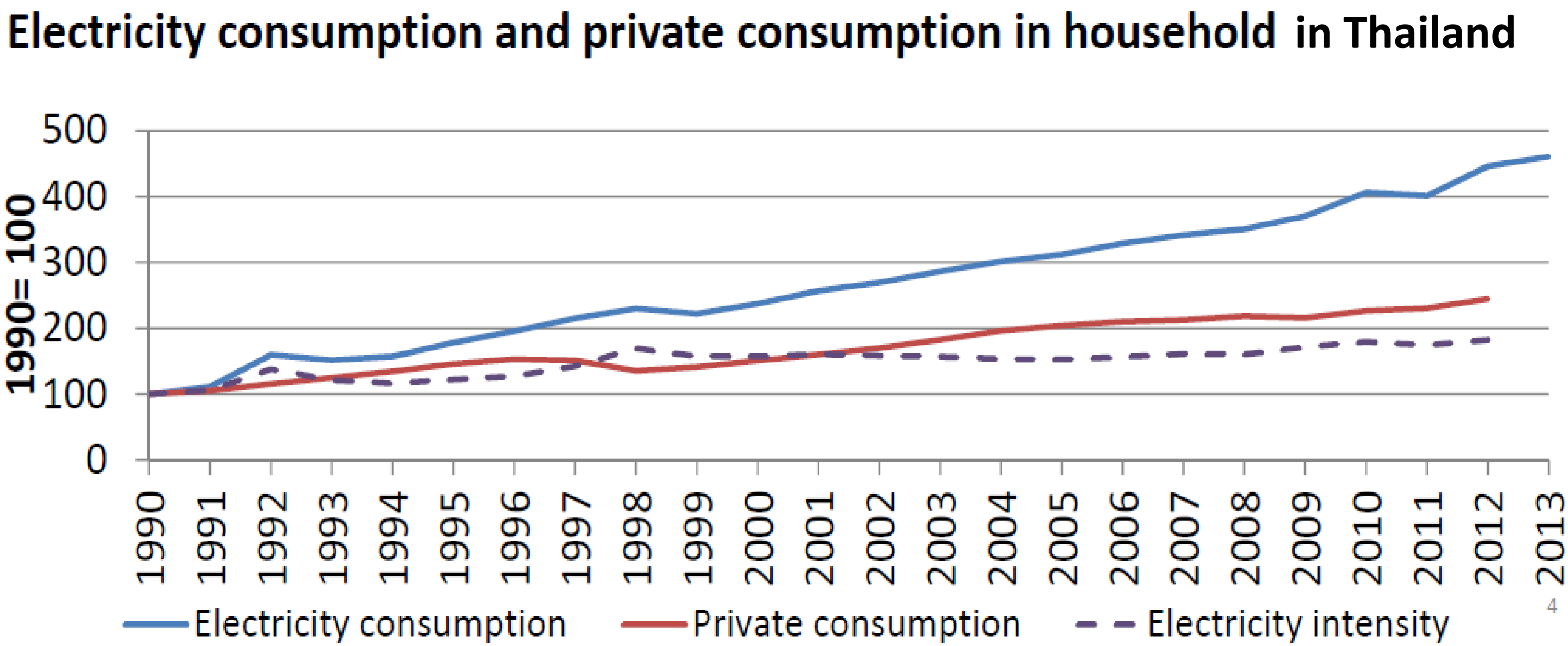
- National Energy Intensity on it’s own, can say little about where energy efficiency is changing and why
- Energy Efficiency Indicators can help understand development in energy efficiency

Why Energy Efficiency Indicators?



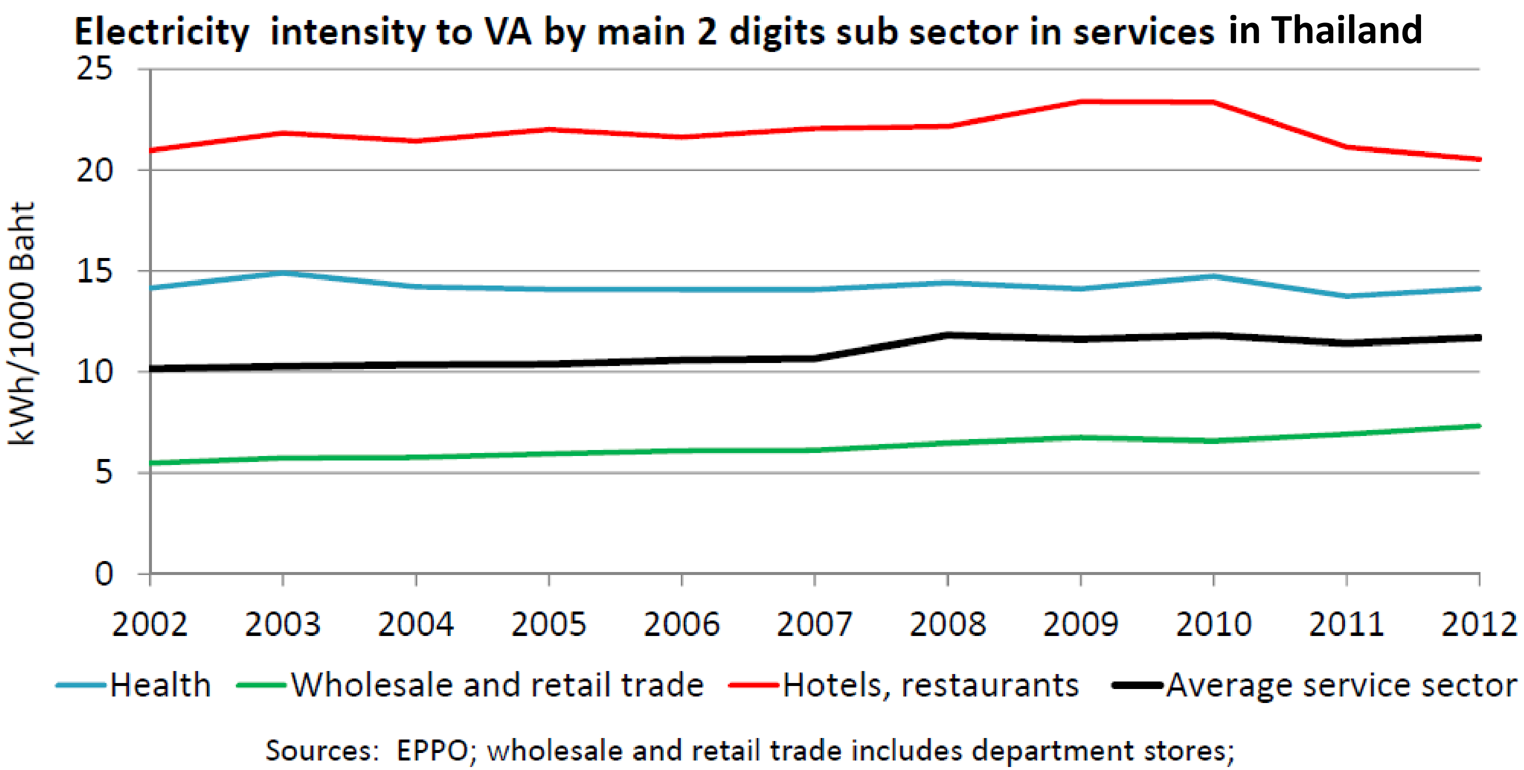
- Energy Efficiency Indicators can be as detailed as available energy data
- At the bottom of the pyramid, best information about energy efficiency can be found

What can we do with EEI?



- Thailand: Electricity intensity in households is increasing (more appliances, with same income)

What can we do with EEI?



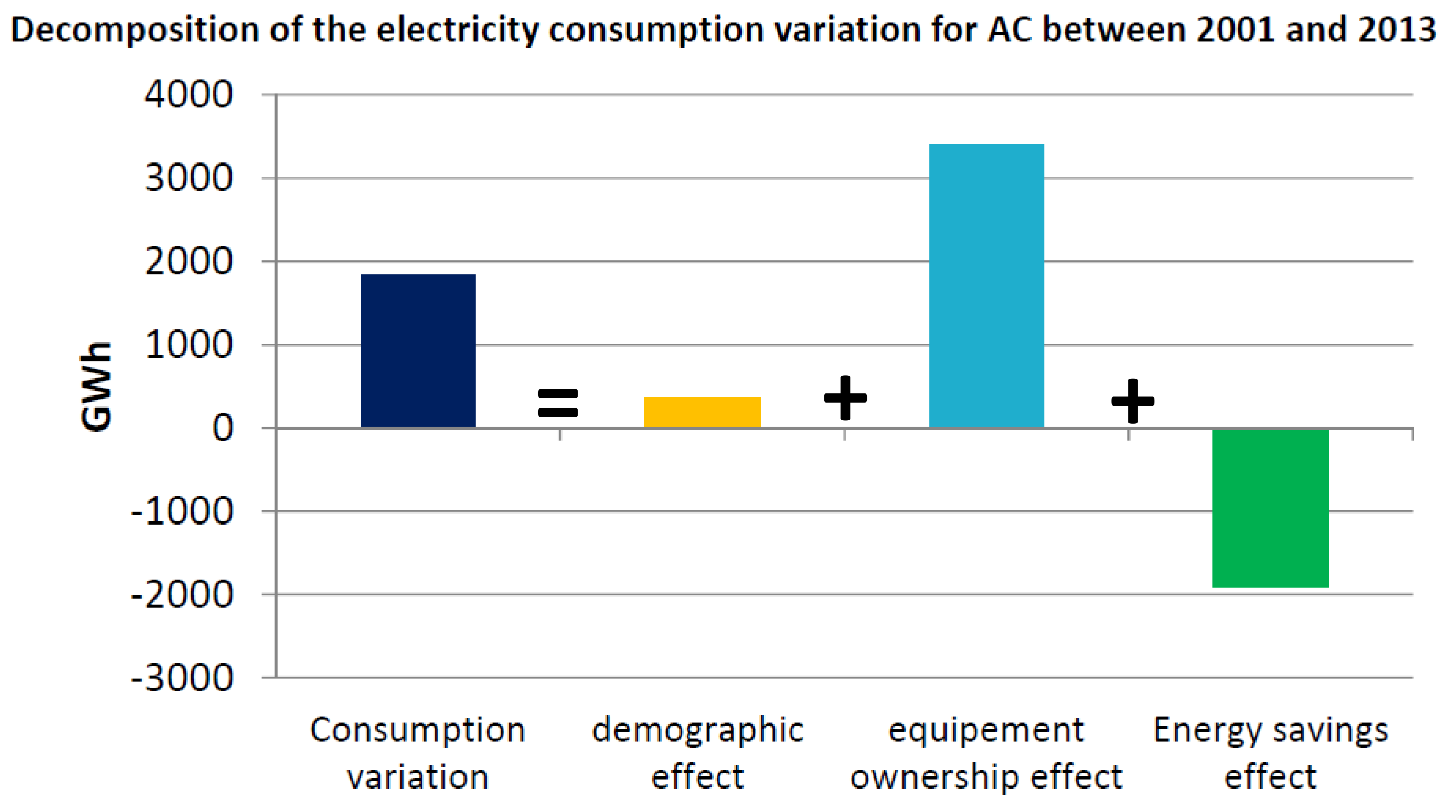
- Thailand: Electricity intensity in hotels, malls and hospitals is relatively stable

What can we do with EEI?

- Thailand: Electricity intensity in households is increasing (more appliances, with same income)
- Thailand: Electricity intensity in hotels, malls and hospitals is relatively stable

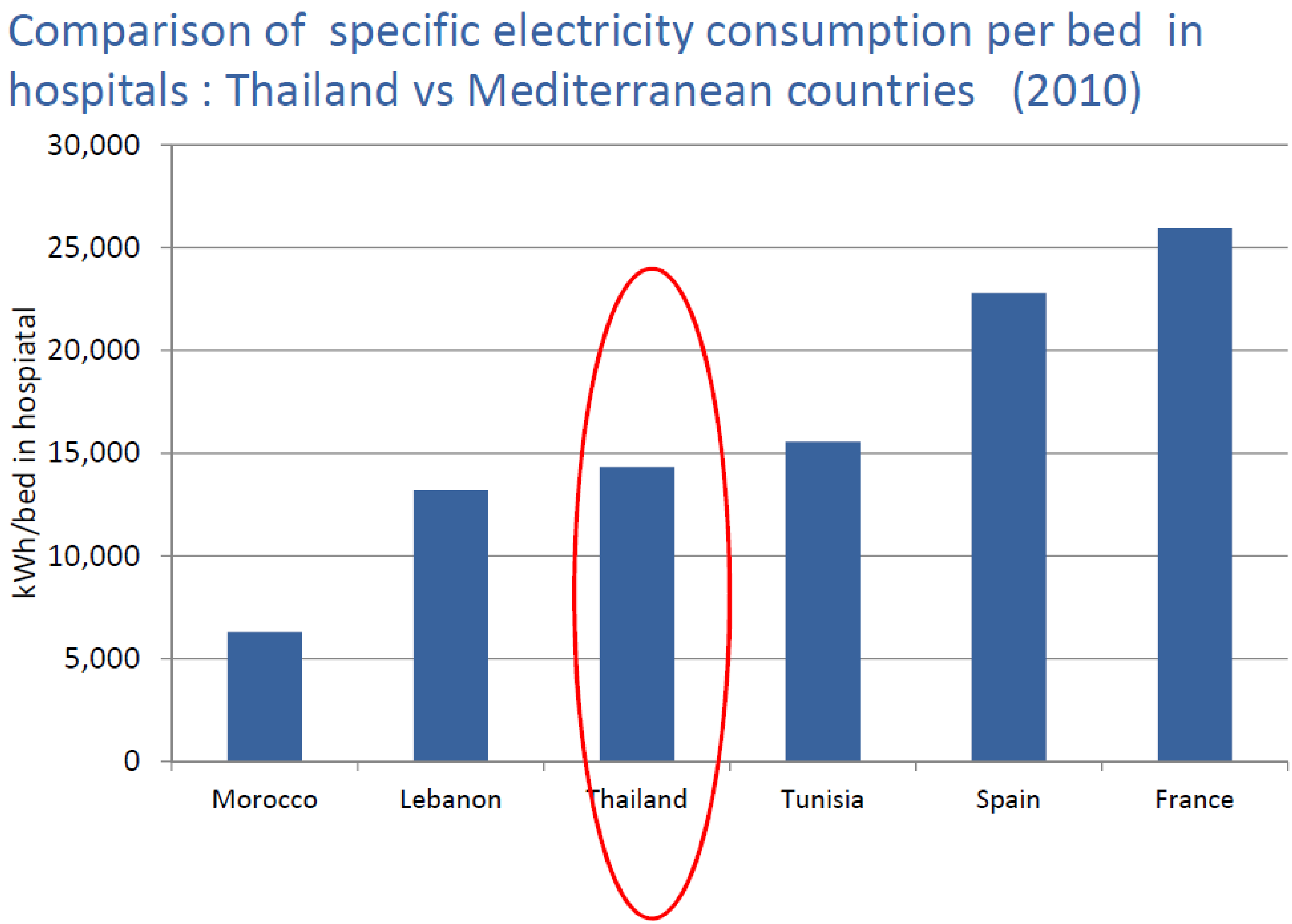
- Policy analysis: do we need more EE-policy for energy efficiency in households?

What can we do with EEI?



- Electricity consumption increase for aircon: a result of population increase and more aircon sales, even though energy efficiency improved

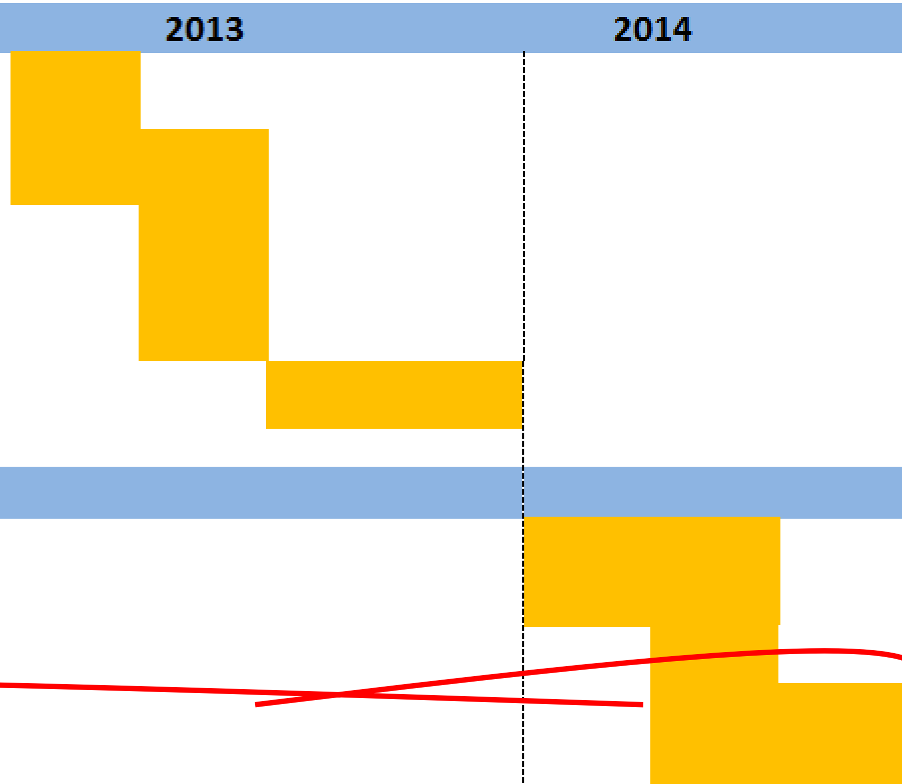
What can we do with EEI?



- Indicators can be used to compare different country results

State of affairs
Energy Efficiency Indicators project

Activities phase 1



1 Analyse availability of energy data in Thailand

2 Analyse accessability of energy data in Thailand

3 Analyse usability of energy data in Thailand, especially for development of Energy Efficiency Indicators

6 Final report

Activities phase 2

1 Develop set of energy efficiency indicators for Thailand

2 Organise training in energy efficiency indicators

3 Disseminate results of developing set of energy efficiency indicators for Thailand

Phase 3: training, coaching and follow-up on data use

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"Training and Handover of the Study on Energy Efficiency Indicator Development"

19th August 2014

VIE Hotel, Bangkok, Thailand

Energy Policy and Planning Office
MINISTRY OF ENERGY

Department of Alternative Energy Development and Efficiency
MINISTRY OF ENERGY

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On behalf of:
Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety

Aim of today's workshop

- Disseminate and discuss results of Energy Efficiency indicators development
- Discuss how to use and maintain data and how data can be used for EEDP
- To discuss next steps: follow-up training and more

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Thank You – Kop Khun Kah – Danke Schön