



Energy Conservation Workshop
under ASEAN-Japan Energy Efficiency
Partnership

[ECAP 20]

**Workshop on Development of BEC
(Building Energy Code) and GBC
(Green Building Code)**

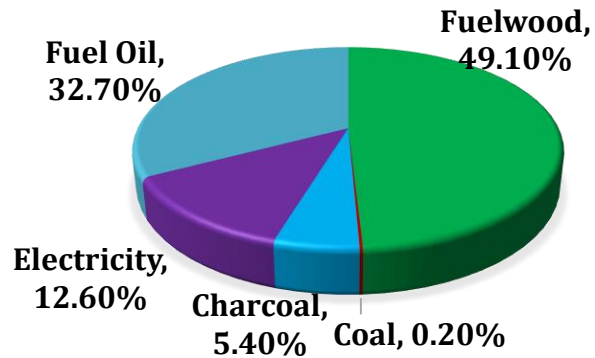
2nd December – 6th December, 2019

Tokyo, Japan

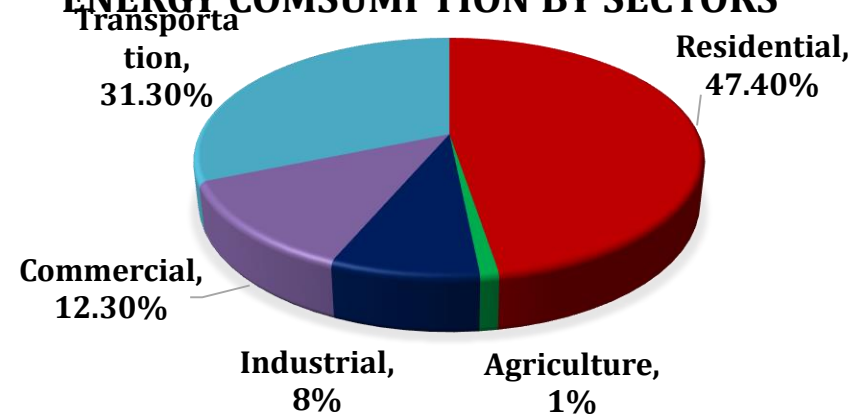
Overview of Energy Consumption

- **Primary Energy Consumption (2014): 2,510 KTOE**

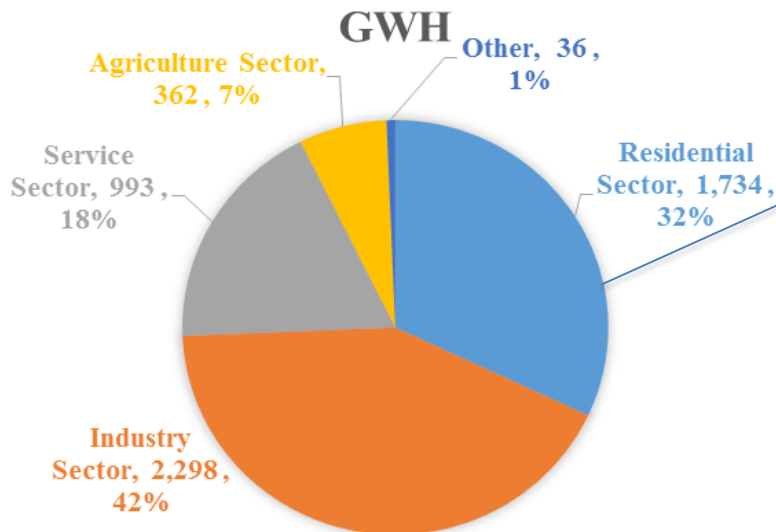
ENERGY COMSUMPTION BY TYPES



ENERGY COMSUMPTION BY SECTORS



Annual Electricity Energy Consumption by Sector, 2018 (GWh)



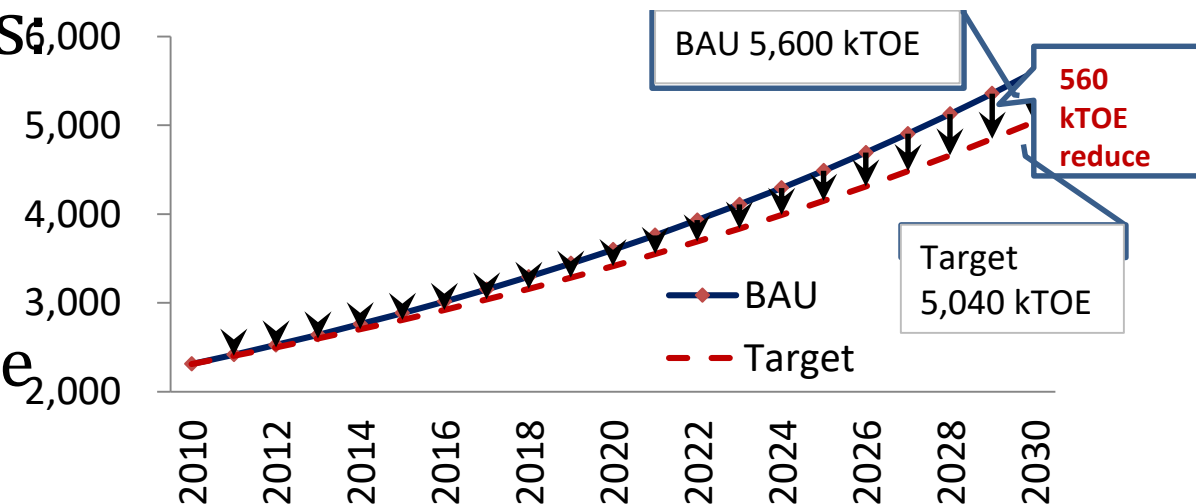
1. Lighting
2. Air conditioner
3. Others home appliances

3. National target on Energy Intensity

- The National target on EI up to 2030:
 - Reduction of national energy demand by 10%
 - GHG reduction

- Focus in 4 areas:

- Industry
- Residential
- Building & office
- Transportation



- Support activity: NEEP, under ACE Cooperation..

2. Legal framework on EE&C

1. National EE&C Policy
2. Prime minister degree (EE&C promotion plan)
3. Roadmap and Master Plan (**EE&C Implementation plan**)
4. Roadmap on Air Conditioner
5. Strategy to promote clean energy in transportation sector
6. Energy Efficiency Standard and labeling
7. Others: under development

The activities for EE in relates products

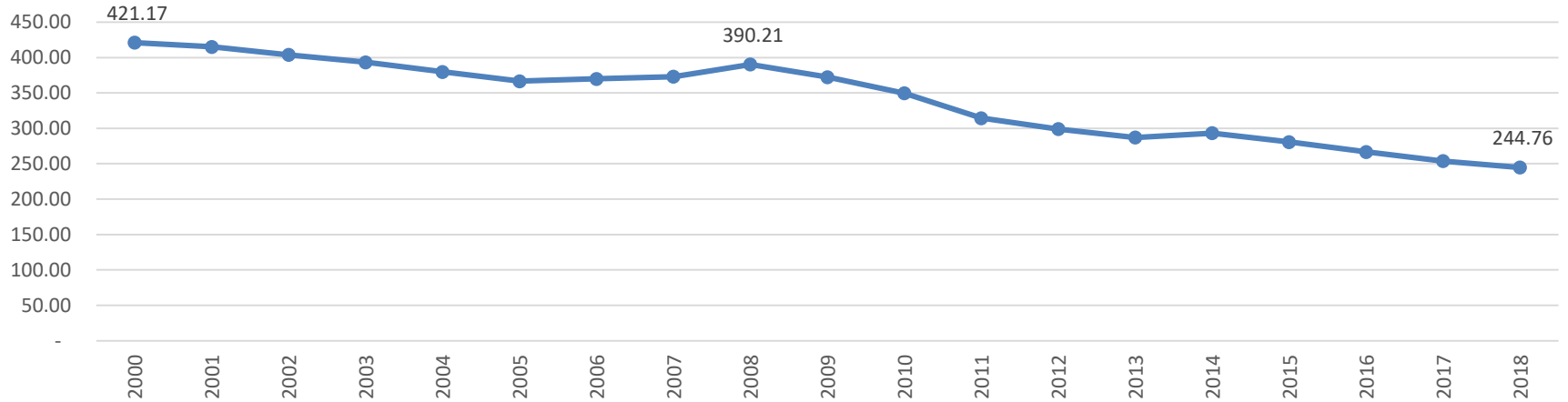
- Air conditioner:
 - Survey and data collection for database development
 - Developing relates legislation tools including S&L to support EE activity
 - Setting up mechanism to manage import product !!!
- Lighting: Propose to have same steps as above mentioned for air conditioner

Targets of EE in Building Sector

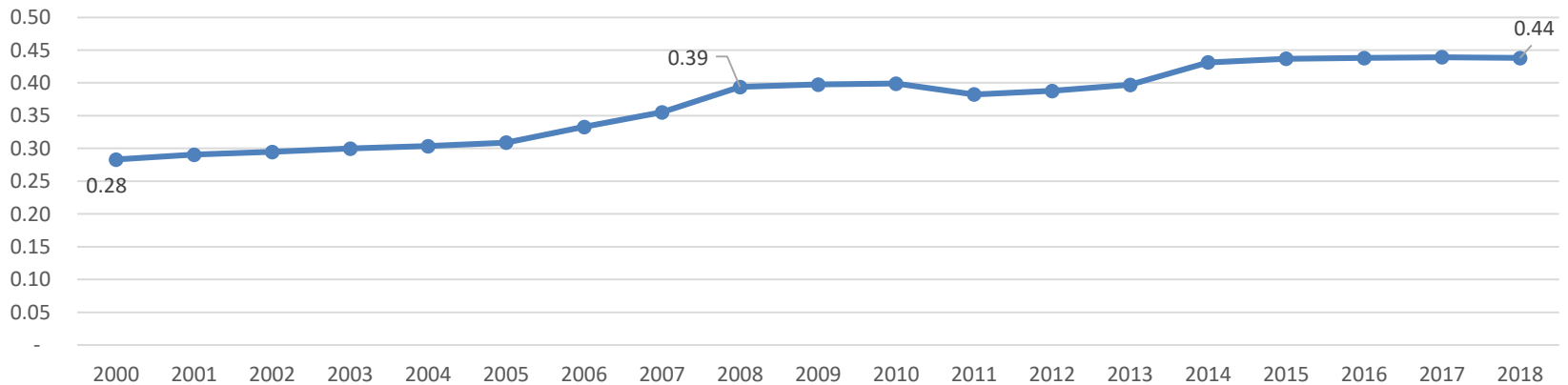
- Office
 - Department store
 - Retail
 - Hotel
 - Condominium
 - Infirmary/Hospital
 - Educational Institute
 - Others
- BEC
 - GBC
 - EEB
 - Env.B
 - ZEB
 - ..

Energy Intensity achievement

TFEC/GDP
(toe/million US\$)



TFEC/Pop
(toe/capita)



EE development System in Building

- Learning and experience exchange with AMS and other partners on BEC/GBC
- Develop BEC/GBC system in the country
- Capacity building to the government officers
- Introduce energy management system to owner of building through pilot activity

Problem and challenges

- Insufficient database and information of all types of building
- Many related tools are underway of development
- Guideline and mechanism on high energy efficiency building are necessary to develop
- No reference tools for designing EE building
- Poor public awareness on EE&C

Future plan on EE&C

1. Develop regulation/guideline for designing and operation EE Building
2. Setting up coordination mechanism between relates sectors and stakeholders
3. Determine the designated building by scoping building's area and energy consume of building
4. Promote energy management system in the building
5. Develop pilot project for EEB, Env.B..

**Thank you for your
kind attention**