

THE STATUS AND POTENTIAL ISSUES OF THE MANDATORY EE&C BUILDING CODE IN INDONESIA

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Ministry of Energy and Mineral Resources

SE4ALL Workshop on EE&C Building Code
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Indonesia Commitment to Emission Reductions

Indonesia commits to reduce (its GHG emission) by 29% from BAU level by 2030 and 41% with international assistance



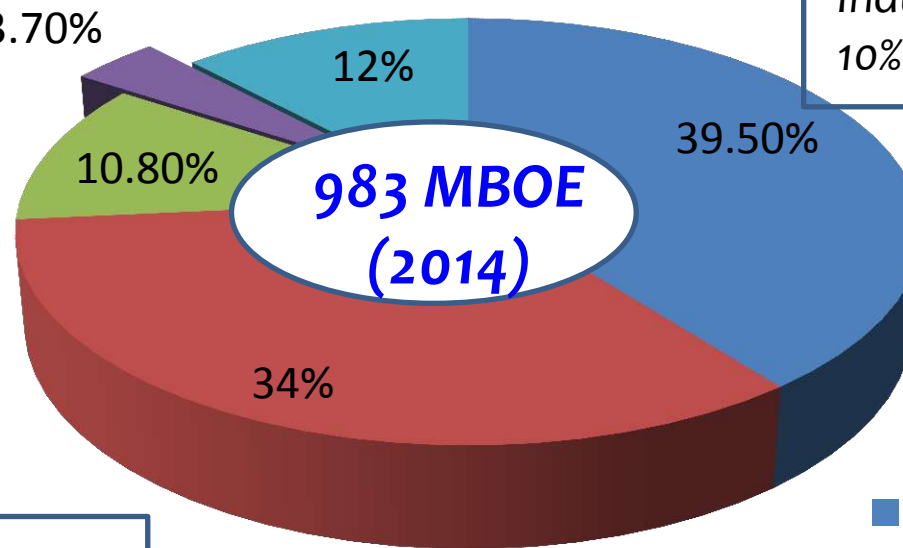
The commitment of President Joko Widodo in COP 21st December 2016 in Paris, Indonesia will reduce GHG emission by 29% on its own efforts dan 41% with international support.

- Government through the Ministry of Environment and Forestry have signed **Paris Agreement** on 22th April 2016.
- Indonesia has ratified Paris Agreement on 4 November 2016



EE&C Potential by Sector

Final Energy Consumption



Commercial Building
10% - 30%



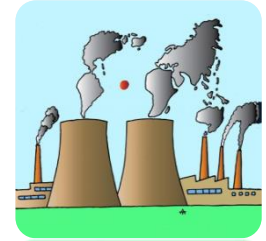
Household
15% - 30%



Transportation
15% - 35%



Industry
10% - 30%



- Industry
- Transportation
- Household
- Commercial
- Other



Regulation & **Standard on EE&C in Building Sector**

- 1) Act No. 30/2007 on Energy
- 2) Governmental Regulation No.70/2009 on Energy Conservation
“Industry and building consume energy more than 6.000 TOE/year should implement energy management (to appoint energy manager, to conduct energy audit, etc.) ”
- 3) Presidential Instruction No. 13/2011 Energy and Water Saving
“To instruct governmental office building to conduct energy and water saving”
- 4) Jakarta Governor Regulation No. 38/2011 on Green Building
- 5) Minister Public Work Regulation No. 02/PRT/M/2015 on Green Building

- 1) SNI 03-6390-2011 on Energy Conservation for Air Condition System in Building
- 2) SNI 03-6197-2011 on Energy Conservation for Lighting System in Building
- 3) SNI 03-6389-2011 on Energy Conservation for Building Envelope
- 4) SNI 03-6196-2011 on Procedure of Energy Audit in Building

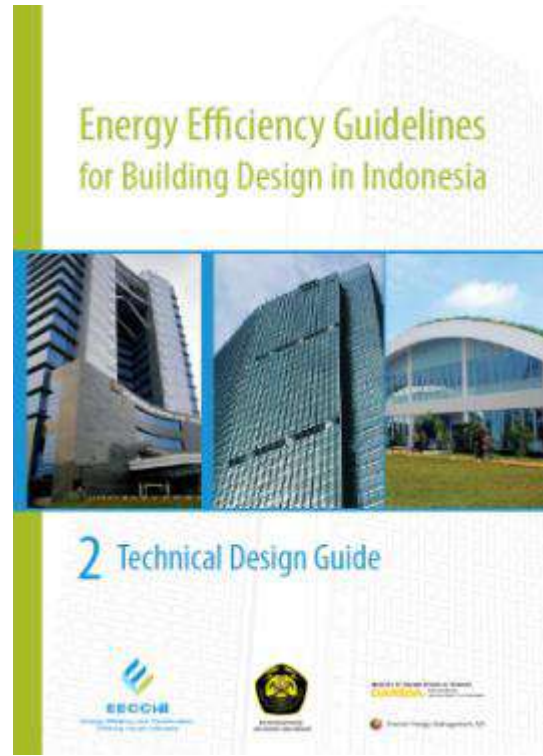
- 1) National Competency Standard for Energy Manager 20015
- 2) National Competency Standard for Energy Auditor 20011



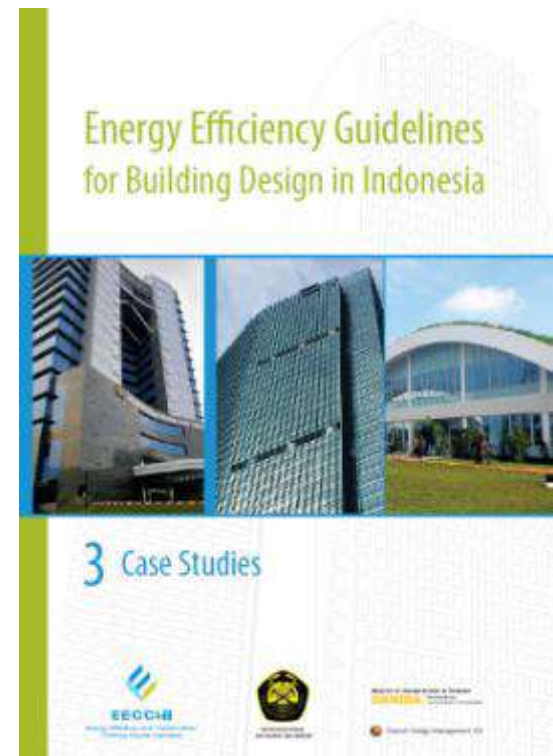
EE Guideline in Building



Developer &
Building Owner



EE Technical
Design Guidelines

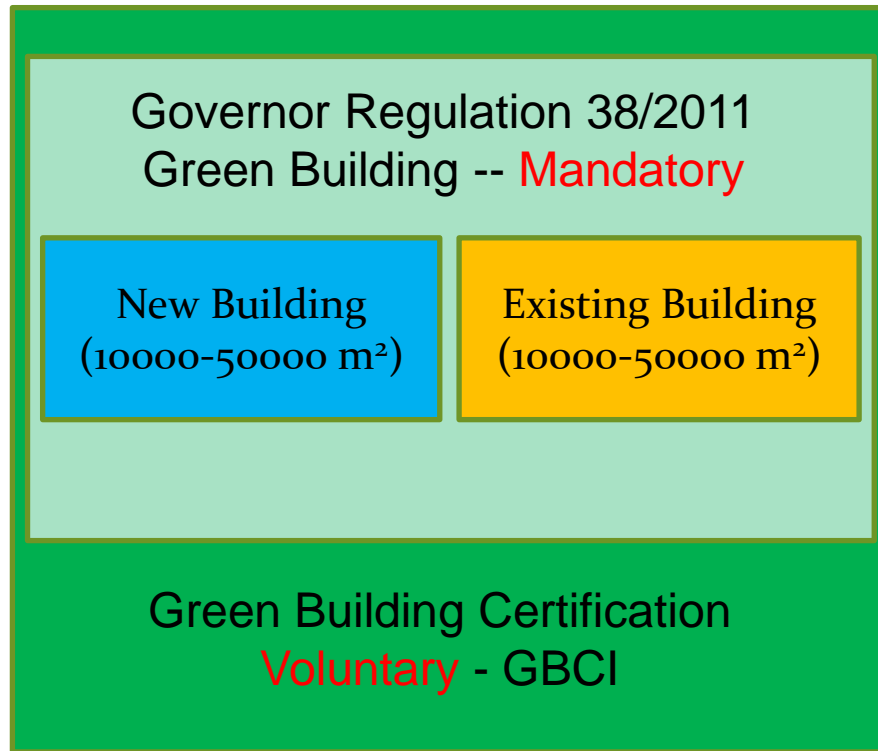


Case Study



Mandatory EE&C Building Code (1)

Green Building Program (Jakarta Province)



Criteria for **New** building:

- Energy efficiency;
- Water efficiency;
- Air quality;
- Land and waste management;
- Management of building during construction;

Criteria for **Existing** building:

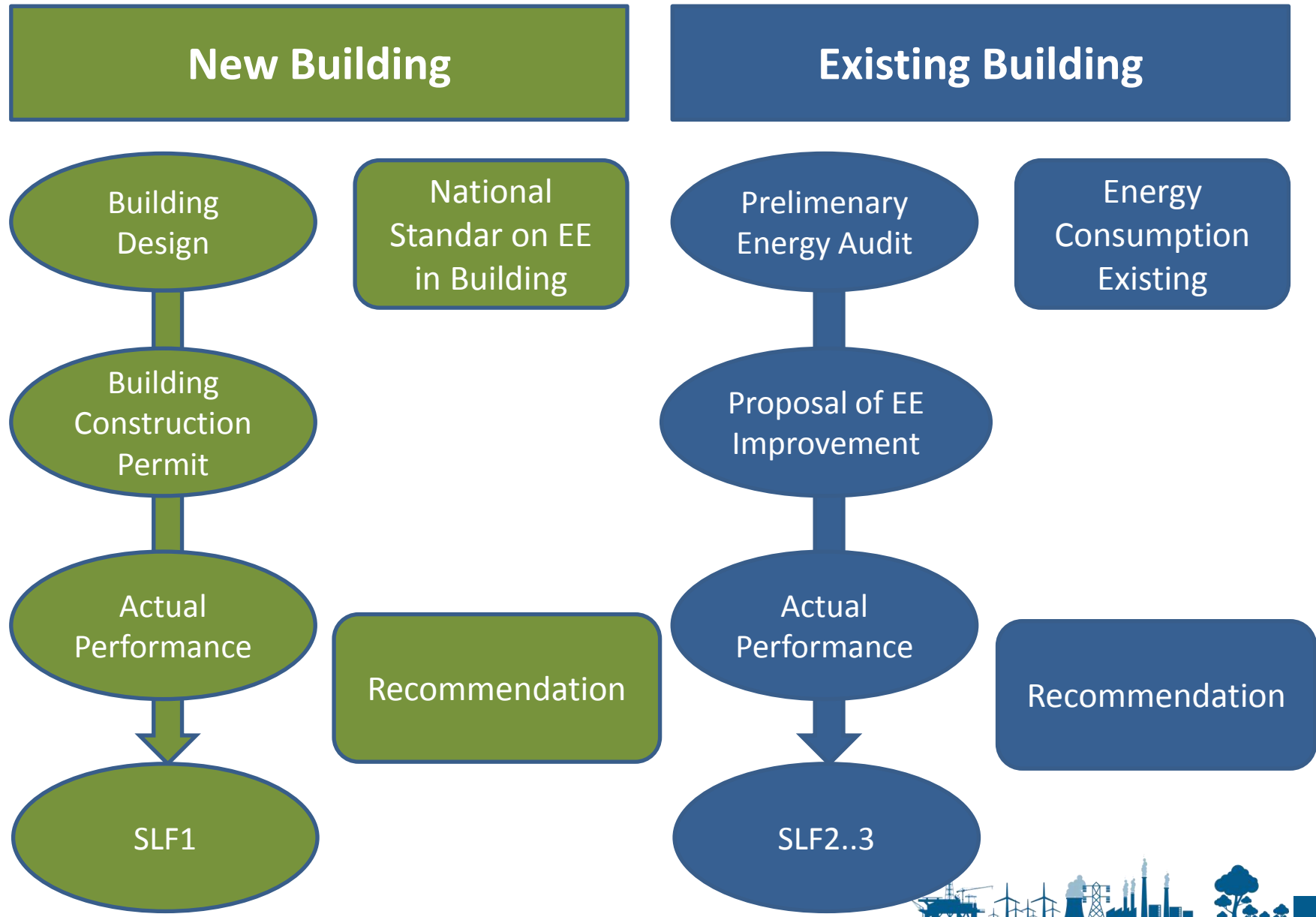
- Energy efficiency and conservation
- Water efficiency and conservation
- Air quality
- Management operational of building

- **Enforcement regulation:**

- Through building permit and/or certificates feasibility of building;
- New/existing building which are not comply with Jakarta green building criteria, are not be allowed to continue;



Mandatory EE&C Building Code (2)



GREENSHIP Indonesia Rating System for Green Building

- GREENSHIP Rating System, an assessment tool developed by the Green Building Council of Indonesia (GBCI) to determine whether a building can be declared eligible certified "green building" or not;
- GREENSHIP certification program organized by the Commission GBCI Rating credible, accountable and integrity;
- The preparation of this GREENSHIP supported by the World Green Building Council, and implemented by the Commission rating of GBCI.

Recognition Achievement:

- Platinum
- Gold
- Silver
- Bronze



Certified Energy Manager & Energy Auditor

Certified Energy Managers



Certified Energy Auditors



National Energy Efficiency Awards (PEEN)



A. Energy Efficient Building Category :

- New Building
- Retrofitted Building
- Tropical Building
- Special Submission
- Green Building:
 - Small and Medium
 - Large

B. Energy Management in Industry and Building Category:

- Building (Small and Medium)
- Building (Large)
- Industry (Small and Medium)
- Industry (Large)
- Special Innovation (Industry)
- Special Innovation (Building)

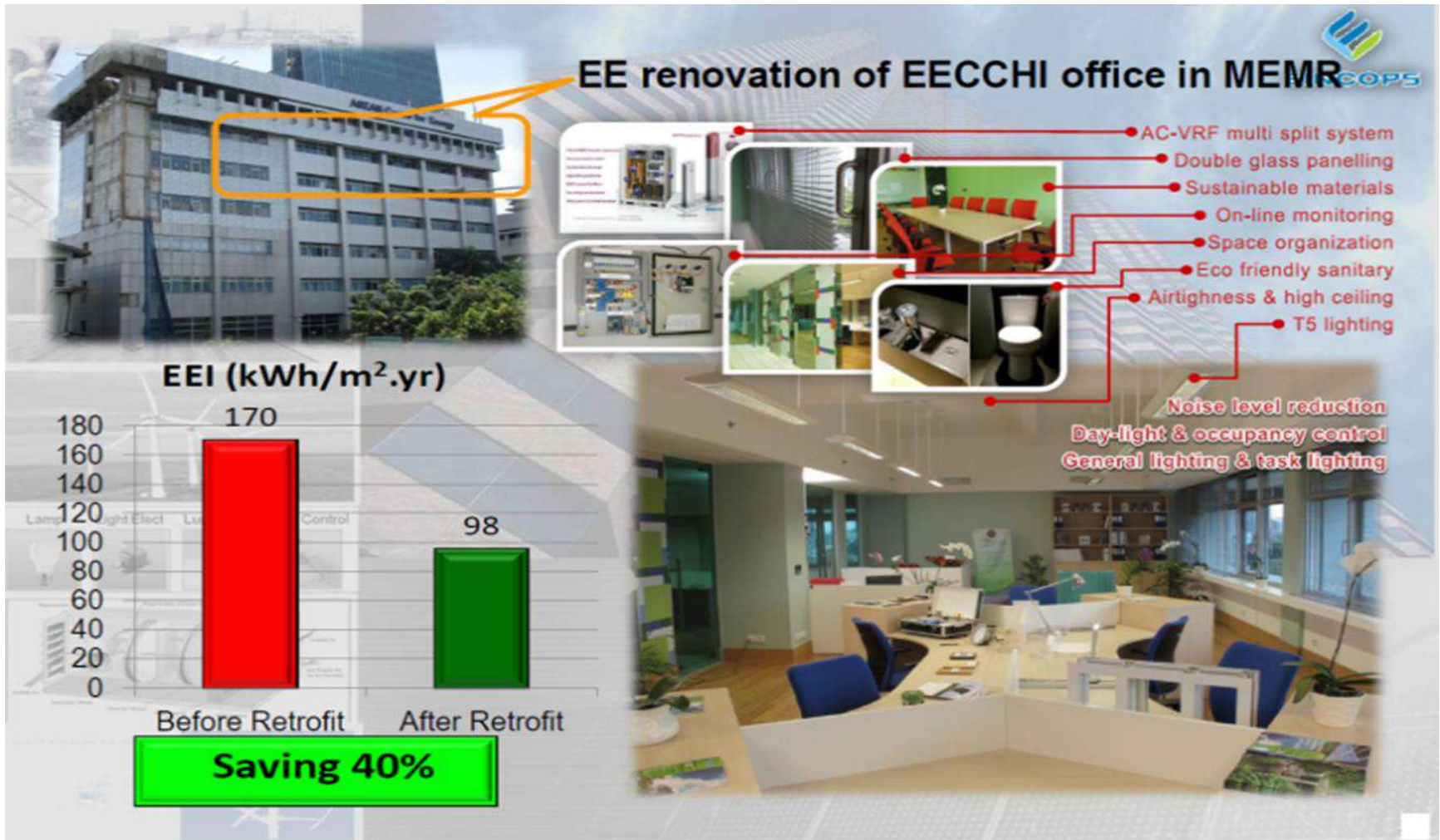
C. Energy and Water Saving in Governmental Institution Category:

- Central Government Institution (Ministry /Institution)
- Local Government Institution



Pilot Project Efficient Building

EE renovation of EECCHI office in MEMR



Barriers & Countermeasures

No.	Barriers	Countermeasures
1.	Limited of <u>number of local government</u> which mandate building code (until now, only Jakarta City and Bandung City)	<u>Gradually push all local governments</u> to implement mandatory building code (through workshops, pilot projects, etc.)
2.	Lack of <u>financial incentive</u> for building owner to implement EE&C	To coordinate with Central Bank and Financing Ministry to <u>make policies on financing mechanism</u> such as soft loan, specialized credit lines, guarantee fund, and revolving fund
3.	Limited of <u>number of qualified energy managers and energy auditors</u> in building	<ol style="list-style-type: none"> 1) To add certified energy manager and energy auditor as <u>one of requirements</u> in regulations on building code 2) To conduct <u>capacity building and certification</u> of energy managers and energy auditors in building massively
4.	Lack of <u>information on EE technology</u> in building	To prepare <u>E-Catalog on EE technology for government procurement</u>
5.	Lack of activities to <u>Monitoring and Verification (M&V)</u> on building code	To improve <u>capacity for local government staff</u> on M&V activities

*Monitoring and Verification (M&V) for
Implementation of Building Code (Workshop
and Training)*





Thank you
Arigatou Gozaimasu

www.esdm.go.id

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