

SE4ALL WORKSHOP

Present Status of Building Energy Code in Lao PDR

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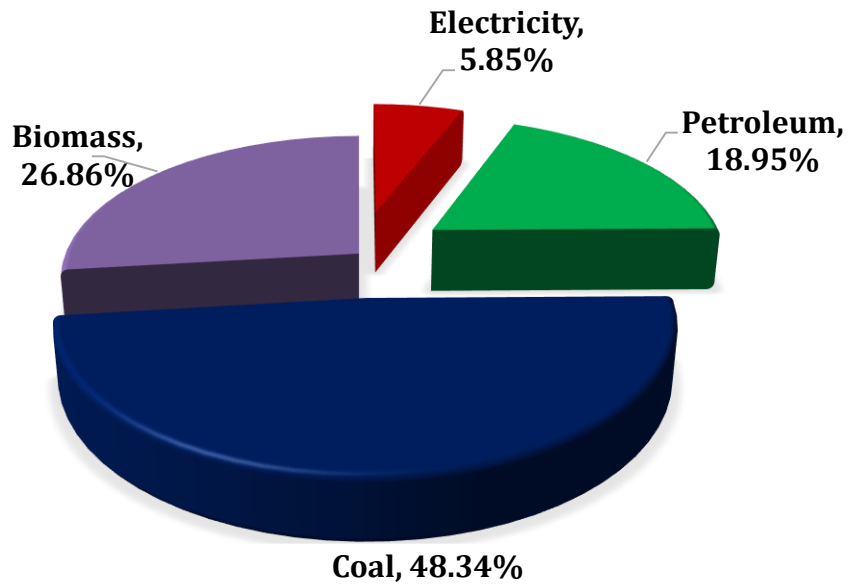
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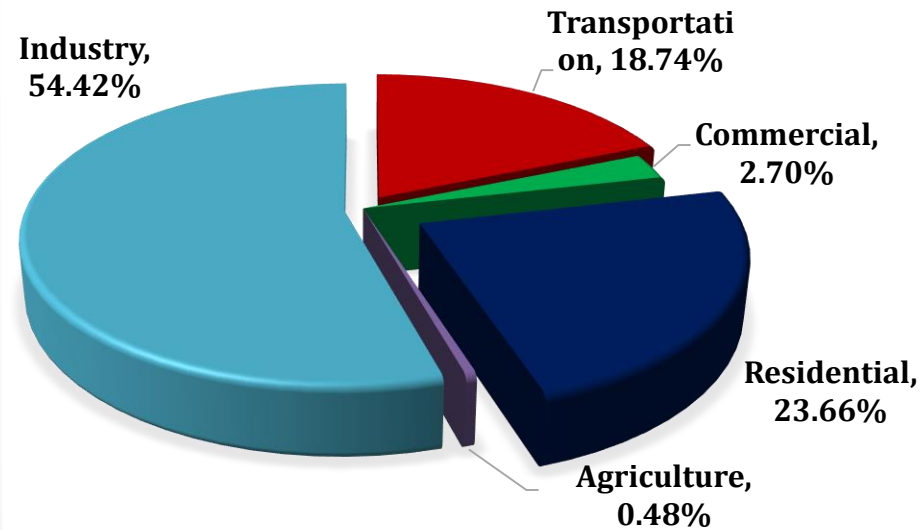
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I. Overview of Energy Consumption

ENERGY CONSUMPTION BY TYPES



ENERGY CONSUMPTION BY SECTORS



Primary Energy Consumption in Lao PDR by 2015 (MEM)

III. Future Plans

- To announce and implement National EE&C policy
- To finalize the Decrees on EE&C Promotion
- To Develop EE&C strategy and action plan toward 2030
 - ✓ EE&C Capacity building
 - ✓ Development of National standards: Building Energy code, electric appliances labeling, ...
 - ✓ Initiate and implement some first pilot projects

II. Present Status of EE&C-Building Energy Code

■ Regulatory Instruments:

- Completed the National EE&C Policy (Industry, Residential, **Building** and Transportation)
- Final Draft Decree on EE&C (**8 chapters and 40 articles**)
- Draft Building Code Prepared by Ministry of Public Work and Transportation (**11 chapters and 68 articles**)

■ Voluntary Instruments :

- Voluntary Energy Audit-Limited
- Voluntary Programs for Training and Awareness

III. Future plans-**Building Energy Code Development**

- Building Energy Code & Standard Development
- Building Energy Code Dissemination
- Best Practices Guidelines/Manuals
- Capacity Building
- Energy Code Support
- Market Mechanism for code implementation
- Developing independent certifying agencies

III. Future plans-Examples of Requirements on Designated Buildings

Building and Systems

- Overall Thermal Transfer Value (OTTV) of the building envelope $< 45 \text{ Wm}^{-2}$.
- Efficient Electric Lighting $< 16 \text{ Wm}^{-2}$ office.
- Efficient chillers and compressors (not the system).

Building Energy Management

- Conduct energy audit
- Plan and retrofit building
- Report energy use

III. Future-Technology Solutions in Building Energy Code

- **Building Envelops** : Building envelopes comprise a range of elements, with roofs, walls, windows, foundations and air leakage being the primary elements that affect building heating, cooling and ventilation loads.
- **Heating and Cooling Technologies** : A systems approach, including integration of heating and cooling needs with improved building envelopes, is necessary to achieve higher energy efficiencies and a low-carbon heating and cooling supply.
- **Lighting, Cooking, and Appliances** : Significant potential remains to achieve higher energy efficiencies in lighting and appliances, while cooking efficiencies, especially using traditional biomass, can be vastly improved.

III. Future- Policy Instruments

- **Policies for Buildings:** Development of Building-specific and product-specific policies, in conjunction with broader systems-level policies, will be essential to achieving large energy savings and emissions reduction.

IV. Barriers

- Insufficient of regulations and national standards on EE&C and Building Code
- Poor public awareness on EE&C and Building Code,
- Lack of information on available efficient technologies and knowledge on energy savings potential for EE&C,
- Inadequate financial incentives,
- Insufficient funding support for EE&C

V. Countermeasures

- Expedite relevant decrees, regulations, and national standards on EE&C and Building Code
- Raise public awareness on EE&C and Building Code,
- Communicate the requirements on EE&C and Building Code with relating authorities, such as public works department, department of commerce, etc.
- Communicate information on available efficient technologies and knowledge on energy savings potential for EE&C and Building Code with architects and engineers who are responsible for building design and equipment procurement.
- Review of tax incentives for energy efficient building and products.

VI. Request for Supports By ECCJ and SE4ALL

- Public campaign and training on awareness on EE&C and Building Code,
- Trainings for energy efficient technologies and knowledge on energy saving potentials for EE&C and Building Code,
- Study on financial incentives tax schemes for the support of EE&C and Building Code,

**Thank you for your kind
attention**