

The Global Opportunity for Energy Efficiency ENCOURAGING INVESTMENT FOR ENERGY EFFICIENCY IN INDONESIA

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The Need for Investments in Energy Efficiency

- Energy, in various forms, is vital to global development toward civilization, prosperity and sustainability
- For most businesses known to day, energy is a significant cost component that will directly influence the business sustainability in the 21st century
- Those who can efficiently use energy in their production processes will command a competitive edge over others, and they most likely can beat or adapt into possible disruptions.
- Energy Efficiency for Energy Conservation. The world will still be dependent on fossil fuels for many decades, before it finds ideal replacement which clean and sustainable.
- Without energy efficiency and conservation, the world will run into a humanity crises that could happen sooner *than* later amidst the obvious negative impacts of global warming and climate change.
- Massive energy efficiency efforts will save multi-billions of USD for the national and global economy and will help avert or mitigate the negative impacts of global warming and climate change

NEEDED EFFORTS TO BE OR BEING TAKEN IN INDONESIA

- □ Reducing and gradually eliminating energy subsidy for fuel and electricity, and building awareness among society members on the negative impacts of using nonrenewable energy resources.
- ☐ Formulating apropriate EE policies and *mandatory* regulations that will drive:
 - Energy efficiency standards for Industries (Energy Performance Standard)
 - Energy efficiency standards for commercial building (Building Energy Code);
 - Energy efficiency standards in Transportation and mobility (fuel performance standards, developing EV infrastructure),
 - Creating clear incentives and disincentives scheme for EE efforts;
 - Proper Energy management efforts;
 - Establishment of Energy Efficiency efforts guidelines;
- ☐ Establishing Effective Funding mechanism for EE Projects and efforts
 - Capacity building for financial institutions, including learning on "live projects"
 - Facilitate and support the establishment ESCO business models
 - Energy Audit and Investment Grade Audit, Audit Verification as basis for funding consideration
 - Create standards for MRV, Energy Saving Insurance and (tradable) Carbon Certification schemes for EE projects
- ☐ Capacity Building:
 - Capacity building and training for policy makers, financial institution;
 - Capacity building and technical training for professionals leading to Competency Certification (Energy Auditors, Managers, and Engineers)
 - Capacity building for ESCO startups

INDONESIA ECE PROGRAMS 2015-2025

POLICIES/REGULATIONS

 Formulate effective and consistent policies / regulations on energy efficiency and conservation

IMPROVE PUBLIC AWARENESS

- Conduct seminars / workshops, advertising, brochures, newsletters etc.
- Implement Energy Saving Competition at the national level, and participate in the ASEAN Energy Award for building and energy management
- Award Energy Efficiency Champions
- Early education programs for energy conservation

FINANCIAL SUPPORTS

- ESCO Development;
- Guiding and engaging financial institutions
- Creating incentive/disincentive schemes
- Building success story in EE Pilot projects

STANDARD & LABEL

- Implementation of MEPS/ Labelling for appliance (CFL, AC, Refrigerator, Electric Fan, Rice Cooker, Motor, Electr Ballast, Washing Machine, Water Pump, etc;
- Establishing national and regional Building Energy Code

PPP PROGRAMS

Massive Energy Audits and IGA In all Sector of the Economy



OVERALL TARGET

- 1. Reducing energy intensity by 1% per year and energy elasticity less than 1 in 2025
- 2. Reducing CO2 Emission: 30 million ton by 2020.

ESTABLISH STANDARDS (SNI based on ISO 50001)

- Implementation of ISO 50001: Energy Management Systems in Industry with the assistance of national and Int'l experts;
- Implementation of energy management mandatory for large energy consumers

DEPLOY LOW ENERGY STREET LIGHTINGS

 Development of Smart Street Lighting at least in 22 selected cities

MONITORING CO2 EMISSION

Target of CO2 emission by 2020:
 30 Million Ton CO₂

DEVELOPING COMPETENT ENERGY MANAGER & AUDITOR

 Certification of Energy Managers and Energy Auditors by Competency Certification Bodies

INDONESIA ENERGY SAVING POTENTIALS

Sector	Energy Consumption by Sector Year 2013*) (Miliion BOE)	Energy Saving Potential	Energy Saving Target by Sector (2025)
Industry	355 (42%)	10 – 30%	17%
Transportation	324 (39%)	15 – 35%	20%
Household	100 (12%)	15 – 30%	15%
Comercial Building	36 (4%)	10 – 30%	15%
Other	23 (3%)	25%	-

Optimizing EE Efforts will save the economy Billions of USD over time (McKinsey, ADB and others)



High Potential Savings on:

- Air Conditioning Systems
- Lightings
- Industrial Process & Equipm
- Electrical Appliances
- Transportation and Logistics
- Power Smart Grid Systems

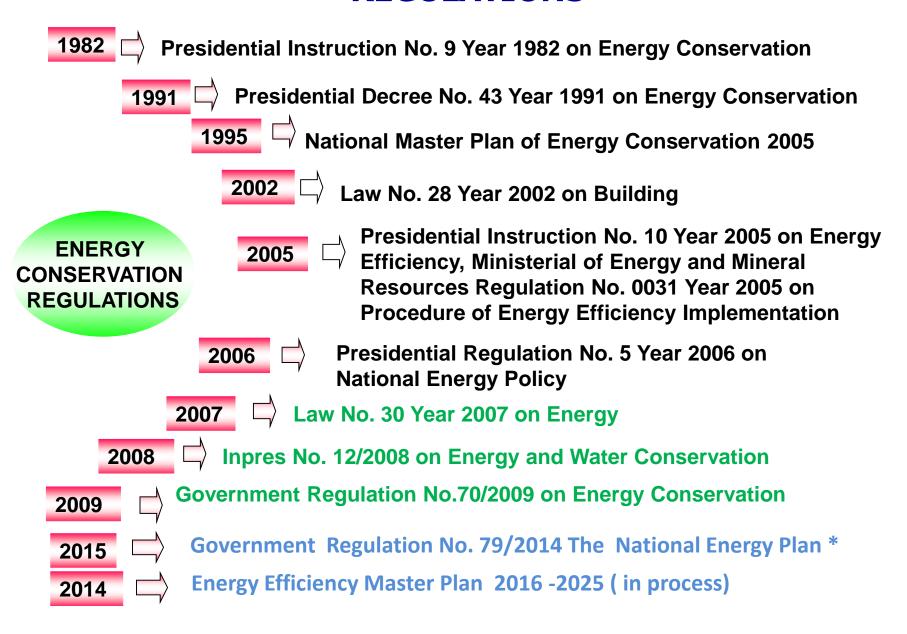


At:

- No Cost
- Low Cost
- Medium Cost
- High Cost

Source: EBTKE

INDONESIA ENERGY CONSERVATION REGULATIONS



Some Conclusions

- EE Investments need broad awareness among stakeholders of the strategic merits and benefits of energy efficiency and conservation.
- It needs better government supports by establishing effective and mandatory regulations governing stakeholders' efforts toward energy efficiency and conservation, with clear and workable incentives and disincentives mechanism
- Successful EE efforts /investments require prudent supports from the financial institutions. However, to get these supports, it needs clear market definition particularly in terms of successfulness and risks.
- To better define investment opportunities, each Sector must establish its specific target for reducing the energy demand (in comply with the national target), with clear and unambiguous energy saving metrics
- It needs specific capacity building for the stakeholders in all sectors to develop and implement energy efficiency projects successfully.
- To protect the national interests, the government must provide clear/nonambiguous guidelines on which technology, products and services must be reasonably produced or delivered by domestic industries, without throwing unnecessary barriers to global technological progresses.
- Energy Efficiency Programs must likely be implemented in tandem with renewable energy development projects to get the greatest impact toward achieving the target of CLEAN ENRGY FOR ALL.



THANK YOU