DIRECTORATE GENERAL ELECTRICITY AND ENERGY UTILIZATION
MINISTRY OF ENERGY AND MINERAL RESOURCES

ENERGY EFFICIENCY AND CONSERVATION IN INDONESIA

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INDONESIA

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CONTENTS

ENERGY CONSERVATION POLICY

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- **1982** ⇨ Presidential Instruction No. 9 Year 1982 on Energy Conservation
- **1991** ⇨ Presidential Decree No. 43 Year 1991 on Energy Conservation
- **1995** ⇨ National Master Plan on Energy Conservation (improved in 2005)
- **2002** ⇨ Law No. 28 Year 2002 on Building
- **2005** ⇨ Presidential Instruction No. 10 Year 2005 on Energy Efficiency Ministerial Decree No. 0031 Year 2005 on Procedure of Energy Efficiency Implementation
- **2006** ⇨ Presidential Regulation No. 5 Year 2006 on National Energy Policy
- **2007** ⇨ Law No. 30 Year 2007 on Energy
- **2008** ⇨ Presidential Instruction No. 2/2008 on Energy and Water Efficiency
- **2009** ⇨ Government Regulation No. 70 Year 2009 on Energy Conservation

Government Regulation No.70/2009 On Energy Conservation

CONTENT

1 Responsibility	2 Implementation of Energy Conservation	3 Standard and Labeling	4 Facilitation, Incentive and Disincentive	5 Direction and Supervision
▪ Government : Formulating policy, enhancing capacity building, etc ▪ Private sector : ✓ Conduct energy conservation measures in all stage of activities ✓ Utilize energy efficient technology ✓ Produce service and production output efficiently ▪ Public/Community : Support and conduct energy conservation program	Energy Conservation should be implemented in all stages of activities : ✓ Energy supply ✓ Energy business ✓ Energy utilization ✓ Conservation of energy resources	▪ Implementing energy efficiency standard and labeling ▪ Producer and importer of energy efficiency appliances should put energy efficiency label in their products as regulate in labeling procedure.	▪ Facilitation : ✓ Providing information access on energy efficient technology ✓ Consultative services on energy efficiency measures ▪ Incentive ▪ Disincentive	▪ Direction; conducted training, technical assistance, energy efficiency dissemination, and facilitating R&D on energy efficient technology ▪ Supervision; on appointing energy manager, preparing energy conservation program, conducting energy audit periodically, implementing of energy audit recommendations

Implementation of Energy Conservation in Energy utilization

Industries and buildings that consume energy ≥ 6000 TOE/year should conduct energy management programs and activities, i.e :

- Appointing energy manager,
- Preparing energy conservation program,
- Conducting energy audit and implementing its recommendation,
- Reporting energy conservation planning and measures to government

Incentive for Energy Consumer and Producer/Importer Energy Efficient Appliances

- Tax facilitation, reducing of tax and duty facilitation for energy efficient appliances;
- Low interest rate for energy conservation investment; and/or
- Energy audit in partnership scheme that funded by government.

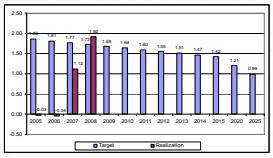
Disincentive for Energy Consumer

- Written notice;
- Announcement in mass media;
- Penalty (2x of energy wasting); and/or
- Reducing energy supply (issued by ministry).

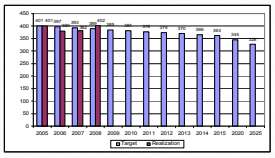
NATIONAL ENERGY EFFICIENCY TARGET

- **To achieve Energy Elasticity less than 1 in 2025**
  (Presidential Regulation No. 5/2006 on National Energy Policy)
- **Decreasing energy intensity 1% per year until 2025**
  (National Master Plan of Energy Conservation 2005)

Target and Realization of Final Energy Elastisity



Target and Realization of Final Energy Intensity (TOE/Million USD)



Energy elasticity is depend on economic condition, industrial structure and demand structure. The value is fluctuating. For instance, energy elasticity was negative in 2005 and 2006 due to increasing energy prices, however, in 2008 energy elasticity was high because of the global economic crisis

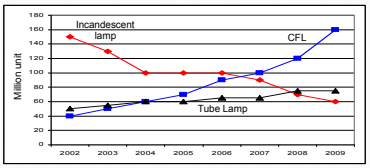
PROGRAM ON ENERGY EFFICIENCY AND CONSERVATION (1)

1. Creating Public Awareness

Description	Barrier
▪ Conduct seminar/workshop, campaign and public advertisement through printed and electronics media, and dissemination of brochure on energy efficiency ▪ Conduct National Energy Awards for building and industrial sector and participating in ASEAN Energy Awards	▪ Need big fund to conduct energy conservation campaign intensively and continuously ▪ Difficult to attract private sector involved in this program

National Lamp Marketing 2002 - 2009
(One of Results of Energy Efficiency Campaign)

Source ; Aperlindo Magazine in 2010



PROGRAM ON ENERGY EFFICIENCY AND CONSERVATION (2)

2. Education and Training

Description	Barrier
▪ Training on energy efficiency and conservation by Centre for Training and Education – MEMR ▪ Participate in the training on energy conservation in abroad conducted by JICA, ACE, etc	- Lack of financial - Lack of competent instructors - Lack of practical facilities

3. Partnership Program on Energy Conservation

Description	Barrier
▪ Providing free of charge energy audit for buildings and industries ▪ During 2003 - 2009, energy audit already done for 292 industries and buildings	▪ Lack of competent energy auditors ▪ Lack of financial scheme for implementing recommendation of energy audit

Medium Target 2010 - 2014

	Year				
	2010	2011	2012	2013	2014
Number of Industries and Buildings	185	185	200	200	200
Energy Saving Potential (TWh)	0.33	0.67	1.02	1.02	1.02
Potential Reduction of Emission (Million Ton CO2)	0.30	0.60	0.92	0.92	0.92

PROGRAM ON ENERGY EFFICIENCY AND CONSERVATION (3)

4. Energy Manager

Description	Barrier
Draft of competency standard of energy manager and energy auditor for building and industry already formulated.	-

Medium Target 2010 - 2014

	Year				
	2010	2011	2012	2013	2014
Number of energy manager (person)	-	50	100	100	100

5. Standar and Labeling

1.	SNI 03-6389-2000	Energy conservation for building envelope of building structures
2.	SNI 03-6390-2000	Energy conservation for air conditioning systems in building structures
3.	SNI 03-6197-2000	Energy conservation for lighting systems in building structures
4.	SNI 03-6196-2000	Energy auditing procedure for building structures

SNI : Indonesian National Standard

PROGRAM ON ENERGY EFFICIENCY AND CONSERVATION (4)

Description	Barrier
▪ Promoting energy efficiency labeling as a guidance for consumer ▪ Energy efficiency lamp (CFL) is pioneer for labeling system	Lack of testing laboratory for performance testing of energy efficiency appliances

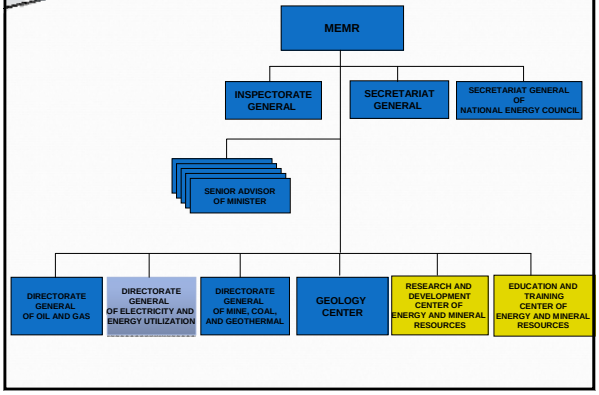
Medium Target 2010 - 2014

	Year				
	2010	2011	2012	2013	2014
Lamp					
Refrigerator and television					
Air conditioner and electric fan					
Rice cooker and washing machine					
Energy Saving Potential (TWh)	0.19	0.50	1.26	2.13	3.02
Potential Reduction of Emission (Million Ton CO2)	0.17	0.45	1.13	1.91	2.72

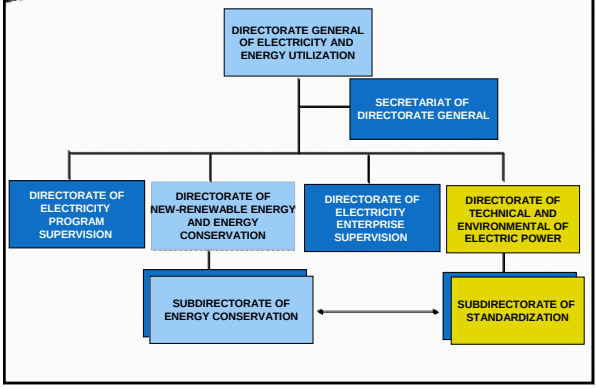
6. International Cooperation, example with Denmark Government

Description	Barrier
▪ Strengthen clearing house on energy conservation as information center of energy conservation activities ▪ Pilot project of energy efficiency building to be adopted by new buildings	-

ORGANIZATIONAL STRUCTURE MINISTRY OF ENERGY AND MINERAL RESOURCES



ORGANIZATIONAL STRUCTURE GENERAL DIRECTORATE ELECTRICITY AND ENERGY UTILIZATION



BARRIERS ON EE&C

- Lack of institutional framework to coordinate EE&C initiatives
- Lack of mandatory policy/regulation
- Lack of human resources capability in the field of energy efficiency and conservation
- Lack of financial support (tax incentive, subsidy or loans at preferential interest rate)
- Lack of public awareness especially residential sector (energy subsidy price effect)