



**Asia-Pacific
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Agenda: D2 4

Economy Update – Indonesia: Energy Efficiency and Labeling Program in Indonesia

Submitted by: Indonesia



**37th Expert Group on Energy Efficiency and Conservation Meeting
Washington, D.C., United States
28 February - 2 March 2011**



DIRECTORATE GENERAL OF NEW RENEWABLE ENERGY
AND ENERGY CONSERVATION
MINISTRY OF ENERGY AND MINERAL RESOURCES

**ENERGY EFFICIENCY AND
LABELING PROGRAM
IN INDONESIA**



THE 37th EGEEC MEETING 2011
Washington DC, 1 March 2011

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OUTLINE

- 1. Background***
- 2. Policy & Regulation***
- 3. Energy Efficiency Labeling Program***
- 4. Barriers***

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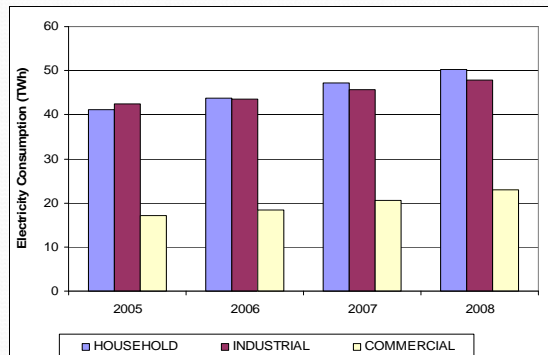
1. Background



BACKGROUND (1)

- Electricity demand is high (6% per year)
- Electricity price is still subsidized by the Government
- Electrification ratio is still low around 66% (in 2008)

Electricity Consumption in 2005 - 2008



The biggest electricity consumer is household sector, the growth of electricity consumption is : commercial sector = 10%; household = 7% and industrial sector = 5%

BACKGROUND (2)

- Energy saving potential, in industrial, household, and commercial sector

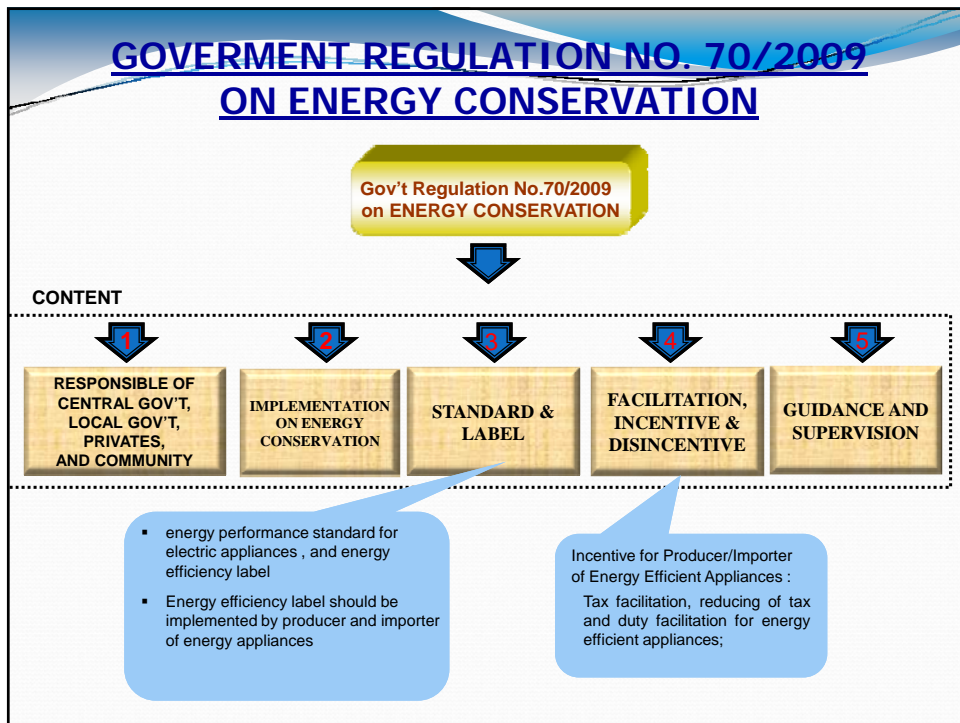
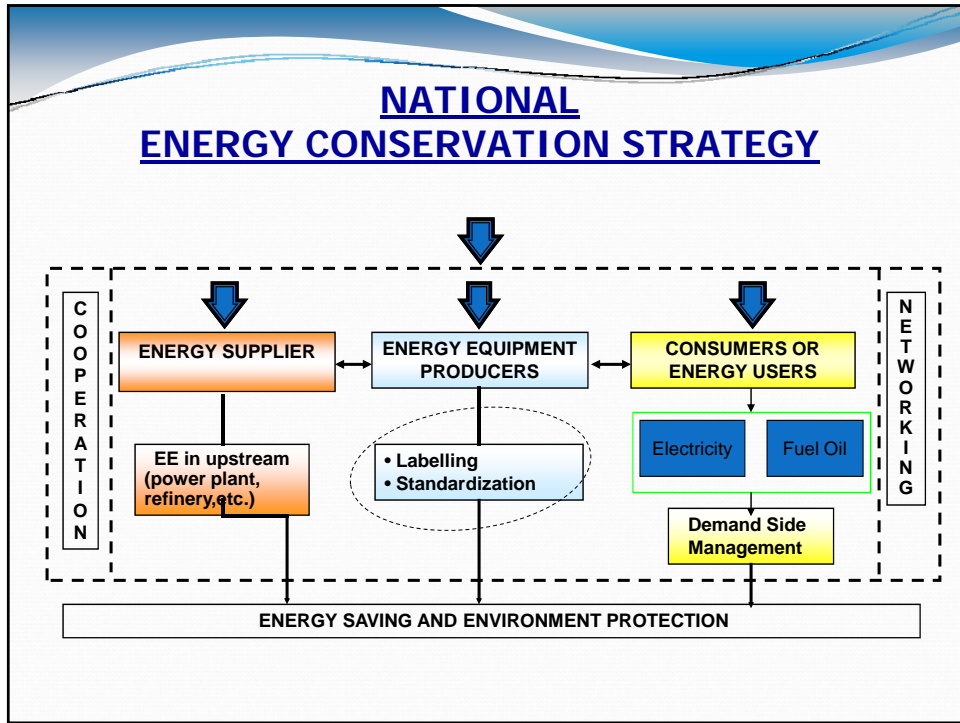
Sector	Electricity Consumption 2008 (TWh)	Electricity Saving Potential	
		(%)	(TWh)
Industry	48	15 – 30	7 – 14
Household	50	10 – 30	5 – 15
Commercial	23	10 - 30	2 - 7

- The biggest electricity consumption in low income households (450- 900 VA) come from Refrigerator, and in high income households (> 1300 VA) come from Air Conditioner

Electric Appliances	R1 -450VA	R1 – 900VA	R1 – 1.300VA	RI – 2,200VA	R2- >2,200VA
Lighting	11.36	13.20	6.31	10.77	10.39
AC	0.00	0.00	38.99	39.91	43.77
Television	16.39	19.60	11.24	9.26	7.37
Refrigerator	29.61	25.22	15.98	12.38	10.14
Water Pump	4.67	4.43	2.71	3.81	5.06
Fan	11.57	5.60	4.83	3.18	1.97
Iron	7.13	5.53	5.50	3.39	2.50
Others	19.28	26.42	14.44	17.32	18.80
Total	100.00	100.00	100.00	100.00	100.00

2. Policy and Regulation





3. Energy Efficiency Labeling Program



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ENERGY EFFICIENCY LABELING

- The objective of Energy Efficiency Labeling Program is to inform the consumers about the energy efficiency level of electric appliances
- Labeling design of energy efficiency for electric appliances in Indonesia



Medium Term Plan 2010 - 2014

	Year				
	2010	2011	2012	2013	2014
Lamp					
Refrigerator and television					
Air conditioner and electric fan					
Ballast and electric iron					
Rice Cooker and Washing Machine					

TESTING LABORATORY

Testing Laboratory


1. Center of R&D on Electricity and Renewable Energy (P3TEK), MEMR
2. Energy Technology Centre (B2TE), Agency of Assessment & Appliances of Technology (BPPT)
3. PT. Sucofindo
4. R&D Centre of State Own Electricity Enterprise (PLN)
5. B4T – Ministry of Industry (MOI)

NO	LABORATORY	SCOPE OF TESTING					
		CFL Lamp	Ballast	Refrigerator	Television	AC	Electric Motor
1.	P3TEK-MEMR	√					
2.	B2TE-BPPT	√	√	√	√	√	√
3.	PT. Sucofindo	√	√	√			√
4.	R&D Center-PLN	√	√				
5.	B4T-MOI	√	√				

EE LABELING FOR CFL

Efficiency Criteria

Power (Watt)	Efficacy (Lumen/Watt)			
	One star	Two star	Three Star	Four star
5 – 9	45 – 49	>49 – 52	>52 – 55	> 55
10 – 15	46 – 51	> 51 – 54	> 54 – 57	> 57
16 – 25	47 – 53	> 53 – 56	> 56 – 59	> 59
≥ 26	48 – 55	> 55 – 58	> 58 – 61	> 61



- Mandatory
- Adopted Self Declare of Compliance
- The Government Conducts inspection

DRAFT LABELING FOR AIR CONDITIONING

Type	★	★★	★★★	★★★★
< 7000 BTU	$9 \leq \text{EER} < 12$	$12 \leq \text{EER} < 14$	$14 \leq \text{EER} < 16$	$\text{EER} \geq 16$
≥7000 BTU	$9 \leq \text{EER} < 12$	$12 \leq \text{EER} < 14$	$14 \leq \text{EER} < 15$	$\text{EER} \geq 15$

Energy Efficiency Ratio (EER) : BTU/Hr/Watt

4. Barriers



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BARRIERS TO PROMOTING ENERGY EFFICIENCY APPLIANCES

No.	Barrier
1	Lack of testing laboratory for energy performance
2	Most consumer choose the cheapest appliances which is not efficient
3	Low price of electricity especially for household sector
4	Lack of knowledge on energy efficiency

