



Bureau of
Energy Resources,
United States
Department of State



National
Association of
Regulatory
Utility
Commissioners

LMI Workshop on Regulation and Regional Coordination Bangkok - Thailand

Introduction

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Geographic Setting

Diverse Region.

Closeness to large regional markets.

Important trade routes.

Opportunities for energy sector integration and interconnection.

Map Credit: Mekong River Commission





LMI - Economic Indicators

**Sub-region
with wide
variations in
market size,
per capita
income and
energy
resource
endowment.**

Lower Mekong Initiative (LMI) Countries					
Economic Indicators					
Country/Region	Area 000 Sq. KM	Population (Million)	GDP 2011/2012 Est.		
			Total Billion \$	Growth %	Per Capita \$
Cambodia	181.0	15.2	37.3	6.5	2,400
Lao PDR	236.8	6.7	19.5	8.3	3,100
Myanmar	676.6	55.2	90.9	6.3	1,400
Thailand	513.1	67.4	662.6	6.4	10,300
Vietnam	331.2	92.5	325.9	5.0	3,600
Region		237.0	1,136.2		4,794
Source: CIA: The World Factbook, The World Bank					



LMI – Electricity Cost/Consumption

Costs range between US 2.5¢/kWh and US 80¢/kWh, and consumption between 69kWh and 2,512kWh/a.

Lower Mekong Initiative (LMI) Countries Comparative Electricity Tariffs					
LMI Region / Country	Installed Capacity MW	Electricity Production Billion kWh	Electricity Consumption		Tariffs US Cent/kWh
			Total Billion kWh	Per Capita per annum kWh	
Cambodia	391	1.0	2.6	169	9-25 (Grid), 40- 80 (Rural)
Lao PDR	1,855	1.6	2.2	333	3.3 -9.6
Myanmar	1,860	5.7	3.8	69	2.5 - 5
Thailand	32,600	173.3	169.4	2,512	5.0 -9.0
Vietnam	26,300	117.0	104.0	1,125	7.0
Region	63,006	298.6	282.0	1,190	
Source: CIA The World Factbook, The World Bank, NARUC and www.worklivelaos.com					



Electricity Generation and Trade

Lower Mekong Initiative (LMI) Countries Electricity Capacity, Production, Fuel and Trade							
LMI Region / Country	Installed Capacity MW	Electricity Production				Elec. Trade	
		Billion kWh	From Fossil fuels %	From Hydro %	Other Renewables %	Exports Billion kWh	Imports Billion kWh
Cambodia	391	1.0	95.2	3.3	1.5	-	1.8
Lao PDR	1,855	1.6	2.7	97.3	-	0.3	1.0
Myanmar	1,860	5.7	67.7	32.3	-	-	-
Thailand	32,600	173.3	88.9	10.9	0.2	1.5	9.6
Vietnam	26,300	117.0	55.0	45.0	0.1	1.6	2.7
Region	63,006	298.6				3.4	15.1
Source: CIA The World Factbook, The World Bank.							



Regulatory Challenges

- **Promoting PPP (market power: monopoly or competition);**
- **Growth opportunities (financial viability, system development and expansion, price affordability and rate design); and**
- **Asymmetric information (financial data, service quality, environment impact and social sustainability).**



Regulatory Approaches

- **Competitive and integrated region;**
- **Sustainable and secure energy (integrated vs. un-bundled);**
- **Incentive regulation (encourage system expansion);**
- **Access to energy and economic development;**



Regulatory Process

- **Institutional structure (independence, financing and policy framework);**
- **Expertise, capabilities and incentives; and**
- **Role of politics (regulatory capture and price expediency).**



Risks

- **Limited predictable regulatory and policy environment to attract private sector investments;**
- **Lack of secure and unambiguous laws; and**
- **It may be easier for customers and other stakeholders to regulate the regulator and policy makers.**



Observations 1

- **Encourage effective competition;**
- **Information and dialogue with stakeholders and decision awards;**
- **Incentive regulation to provide opportunity for profits and system expansion;**



Observations 2

- **Requirements for service quality and access for vulnerables; and**
- **Align private behavior with public interest (welfare of customers).**



Thank you!

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Regulatory Approaches 2

- **Ring fencing and account separation;**
- **Bench marking or yardstick;**
- **Tariff Design**