Clean Energy Regulation in ASEAN Countries

Bill Gallery
Clean Energy Consultant

June 9, 2016

Objectives

Has regulatory reform led to effective regulation in ASEAN?

Why or why not?

How could future reform efforts lead to more effective regulation?

There have been improvements in the regulatory framework in most countries, but implementation and enforcement remain weak, and improving it should likely be a priority moving forward.

Overview and Approach

Large multi-year study

8 Countries in South-East Asia

Power and Water sectors

22 elements of regulatory effectiveness

Caveats

Literature Review	Workshops and Interviews	Case Study Development	Synthesis
To develop analytical framework	Initial primary data collection	Iterative process of drafting and research	Regional analysis based on case studies

Overview and Approach

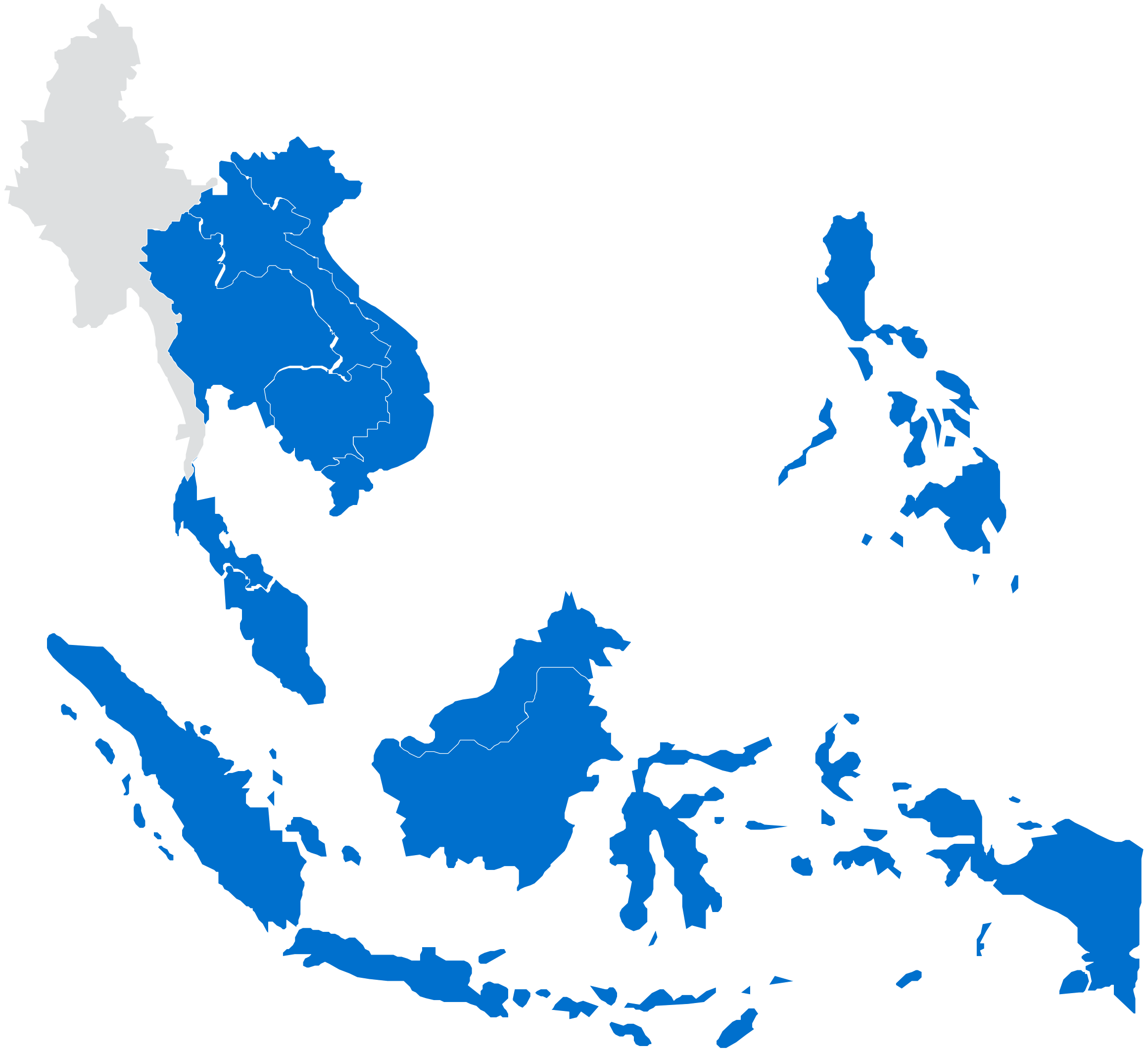
Large multi-year study

8 Countries in South-East Asia

Power and Water sectors

22 elements of regulatory effectiveness

Caveats



Overview and Approach

- Large multi-year study
- 8 Countries in South-East Asia
- **Power and Water sectors**
- 22 elements of regulatory effectiveness
- Caveats

Basic public services

Similar reform ideologies

Natural monopolies

Water-Energy linkages

Overview and Approach

Large multi-year study

8 Countries in South-East Asia

Power and Water sectors

22 elements of regulatory effectiveness

Caveats

Regulatory Governance

- Autonomy
- Clarity of Roles &Responsibilities
- Capacity
- Transparency
- Participation
- Accountability
- Predictability
- Integrity
- Credibility
- Legitimacy

Regulatory Substance

- Access
- Service Quality
- Tariffs
- Subsidies
- Licensing
- Efficiency
- Accounting and Reporting
- Financial Performance
- Investment and Maintenance
- Equity
- Environmental Sustainability
- Market Composition and Competition

Overview and Approach

Large multi-year study

8 Countries in South-East Asia

Power and Water sectors

22 elements of regulatory effectiveness

Caveats

Limited number of case studies

Wide range of country conditions

Static data and changing countries

Roles and Responsibilities

Proliferation of new agencies or departments focused on clean/renewable energy

	Responsibility for Clean Energy Regulation/Policy
Cambodia	No separate/dedicated agency
Indonesia	Department under Energy Ministry
Lao PDR	Institute under Energy Ministry
Malaysia	Separate agency under Energy Ministry
Philippines	Dedicated RE board (RPS) and regulator (FIT)
Singapore	No separate/dedicated agency
Thailand	National Energy Policy Committee (FITs) and Ministry (targets)
Vietnam	No separate/dedicated agency

Potential for confusion over roles and need for coordination

Access

Generally a policy for utilities to expand access, but no strict regulatory mandate

Requires financial support, which is often not available

Alternative access schemes

Limited success when focused purely on providing systems

Most successful have clear financial incentive

	Population with access to electricity (%)
Cambodia	31%
Indonesia	76%
Lao PDR	82%
Malaysia	97% (2010)
Philippines	83% (2013)
Singapore	100%
Thailand	>99%
Vietnam	98%

Source: Country case studies. Data is from 2012 unless otherwise noted.

Efficiency

Supply Side

A few supply side incentives in place

- Price controls (CPI-X): Philippines, Malaysia, Thailand
- Performance incentives: Philippines, Malaysia

Despite this, strong performance by utilities on T&D losses

- Cambodia: <10%
- Lao PDR: drop from 20% to 10.4%
- Viet Nam: 8.85%

Generation competition/markets play a key role as well

Demand side

Few extensive DSM programs

- Thailand: low-cost financing, subsidized equipment, tax incentives

Energy audits for large consumers fairly widespread

Standards and labeling, especially for lighting

Rising block tariffs, but heavily subsidized

Smart grids still at very early stage

Renewables

Targets and renewable portfolio standards

Feed-in Tariffs

Several countries have FITs in place

- Thailand: adder passed on to customers, replaced by FIT
- Malaysia: funded by general charge on customers
- Indonesia and Philippines: problems with implementation

Net metering for small-scale producers

Philippines and Thailand

Tax incentives/VAT exemptions

Philippines, Thailand, Lao PDR

General Conclusions

Increasing attention to clean energy regulation, but not always comprehensive frameworks

Enforcement and accountability are key

People (and companies) respond to incentives

No uniform approach

The Future of Clean Energy Regulation in ASEAN?

Strong push towards universal access, with adequate funding and incentives?

Financial regulation promoting greater efficiency on supply and demand side?

Increased support for renewables through FITs, RPSs, or other programs?

Thank you!

Bill Gallery
bgallery@nexant.com

22nd Floor, Rasa Tower I,
555 Phahonyothin Road,
Kwaeng Chatuchak,
Khet Chatuchak,
Bangkok 10900 Thailand

Telephone: +662 793 4600
Facsimile: +662 937 0144

www.nexant.com

Nexant, Inc.

San Francisco
New York
Houston
Washington
London
Frankfurt
Bahrain
Singapore
Bangkok
Shanghai
Kuala Lumpur

www.nexant.com