

New Horizons for Competition Law in Asia
The 4th Annual Asian Competition Forum Conference
December 6-9, 2008, The Hong Kong Polytechnic
University

The Experience in Electricity and Natural Gas
Market Reforms

Hassan Qaqaya
Head,
Competition law and Policy Branch
UNCTAD

Hassan.qaqaya@unctad.org
www.unctad.org/competition

Introduction

- Access to modern energy services is critical for socio-economic development. Energy underpins the provision of clean water, health services, education and communication. It is obvious that efficient and clean energy supplies are needed to fuel development and fight against poverty.

Introduction

- During the late 1980's to early 1990's Thailand, Malaysia, Indonesia and the Philippines started to legalize Independent Power Producers (IPPs) to promote private participation in the electricity generation sector. These IPPs alleviated the power shortage problem in Indonesia and the Philippines and served as an initial step towards market liberalization in all four countries.
- However, Since power plants are expensive, electricity demand is unpredictable and it could take a long time for firms to break-even, the government had to provide "insurance" for healthy profit. This includes take-or-pay, dollar-pegged payment, and guaranteed rate of return clauses. Throughout the past decade, especially right after the Asian financial crisis in 1997, governments have been struggling to meet these obligations.

Introduction

- Prior to the late 1980's, electricity production and transmission was owned by a state-owned monopoly: EGAT in Thailand, National Electricity Board (NEB) in 11 peninsula states of Malaysia, Sabah Electricity Board (SEB) and Sarawak Electricity Supply (SESCO) in Borneo states of Malaysia, Perusahaan Umum Listrik Negara (PLN) in Indonesia and National Power Corporation (NAPOCOR) or (NPC) in the Philippines.
- In the four countries, the electricity sector varied across countries: Indonesia and the Philippines contain a large number of small islands, which makes electricity distribution difficult. Thus electrification rate was 37.3 percent in Indonesia, 54.6 percent in the Philippines and 92.7 percent in Thailand (World Bank Publication, 1994).

Structure of the electricity sector

- In 2007, the electricity industry in Thailand, Malaysia, Indonesia and the Philippines is still highly vertically and horizontally integrated. The generation is operated by either a state-owned monopoly (Thailand, Indonesia and the Philippines) or a corporation heavily controlled by the government (Malaysia).
- At the wholesale level, there is very little to no competition: Transmission is generally monopolized; Distribution is a monopoly in Malaysia and locally monopolized in Thailand, Indonesia and the Philippines;

Structure of the electricity sector

- In order to review the challenges of introducing competition in the electricity sector of the four countries. The following issues are addressed:
 - Privatization;
 - Wholesale competition;
 - Unbundling;
 - Retailing;
 - Introducing independent regulators.

Main steps in electricity reforms

- Table 1

Table 1: Main Steps in Electricity Reform

| | |
|--------------------------------|--|
| Restructuring | - Vertical unbundling of generation, transmission, distribution, and supply activities |
| | - Horizontal splitting of businesses |
| Competition and Markets | - Wholesale market and retail competition |
| | - Allowing new entry into generation and supply |
| Regulation | - Establishing an independent regulator |
| | - Provision of third-party network access |
| | - Incentive regulation of transmission and distribution networks |
| Ownership | - Allowing new private actors |
| | - Privatising the existing publicly owned businesses |

Privatization

- In Thailand, Malaysia, Indonesia and the Philippines, privatization took two forms. One is through allowing Independent Power Producers (IPPs) and another is through privatizing the state-owned enterprise.

By the end of 1993, more than 25 IPPs were producing electricity in the Philippines and the power shortage problem was resolved (Abrenica, 2004). In 2001, about 41 percent of electricity was produced by IPPs and the rest by NAPOCOR (Woodhouse, 2005).

- However, poorly negotiated contracts brought about large financial burden to the government (Abrenica, 2004).

Privatization

- In Malaysia, the government allowed IPP to enter the market in order to increase reserve capacity (Smith, 2003). IPP contracts were granted without any bidding process, which led to agreements that greatly favored the IPPs, leaving big financial burden to the government. In 2006, about 43.3 percent of electricity is produced by IPPs and 56.7 percent by Tenaga (Tenaga annual report, 2006).
- For Indonesia, the first IPPs contract was signed in 1990. Between 1994 and 1997, about 25 additional contracts were granted (Seymour and Sari, 2002). The introduction of IPPs changed the situation in Java-Bali area from shortage to overcapacity, but electrification in the rural area was still only 51 percent in 1996 (Seymour and Sari, 2002).). In 2002, about 8.6 percent of electricity was produced by IPPs, about 33.4 percent is captive power by manufacturers (World Bank publication 2005), and about 58 percent was produced by PLN (Seymour and Sari, 2002).

Privatization

- Thailand, IPPs were allowed in response to the country's policy to promote privatization (Greacer and Greacer, 2004). After the Asian financial crisis in 1997, EGAT was unable to meet the obligations to guarantee payment to IPPs. In 1999, it had to divest the Ratchaburi plant, one of its most profitable plants, through the Stock Market of Thailand .
- Malaysia is the only country who privatized its state-owned enterprise. In 1990, the NEB was reestablished as Tenaga. In 1992, the government sold 30 percent of the company in the Kuala Lumpur Stock Exchange.

Privatization

- The cause of “poor” contract is both technical and political. As Abrenica (2004) points out, “poor” contracts could be results of time pressure and lack of experience. Thus, more rigorous analysis should be adopted to improve negotiated terms. The government should use past experience to estimate more appropriate contract terms. The take-or-pay clause should be used with some capacity limit. Payment should be less depended on foreign exchange rates. Contracts should be renegotiable.
- In many cases, however, the problem is rather political than technical. In Indonesia and Malaysia, IPP permits were usually granted to those who had connections to the country’s leaders (Smith, 2003) (Seymour and Sari, 2002).

. Wholesale Competition

- The introduction of IPPs in Thailand, Indonesia, Malaysia and the Philippines provided a good foundation to promote competition in the wholesale market. Currently, however, IPPs directly supply to the national electricity authority under inflexible long-term bilateral contracts. There is very little to no wholesale competition in the wholesale market.
- In 2000, the Thai government approved the plan to restructure the electricity sector by following the UK power pool model (Greacer and Greacer, 2004). This would require all power producers to sell their electricity to a power pool, who then sell electricity to distributors. EGAT strongly opposed this plan unless it was allowed to split into no more than two companies

Wholesale Competition

- Note however, that encouraging competition in the wholesale market can be risky when the market is not mature and there exist dominant sellers. Negotiation failure between sellers and buyers can lead to power shortage. Abuse of dominant power by big sellers can drive smaller firms out of the market. (Woo et al., 2003).
- Thus, as long as the markets in Thailand, Malaysia, Indonesia and the Philippines are still dominated by a state-owned monopolies, competition in the wholesale market should not be enforced.

. Retail Competition

- Providing choices of retail services has not been addressed seriously in Thailand, Malaysia, Indonesia and the Philippines. This is because the countries have been focusing on delivering electricity to rural communities and guaranteeing peak-load supply in the cities.

Unbundling

- In 2001, the Philippines government approved a full privatization of the electricity sector through the Electricity Power Industry Reform Act (EPIRA) (Thomas, 2006).
- In Thailand, the privatization strategy similar to the UK power pool model was approved in 2003. The government planned to split EGAT, PEA and MEA into separate companies
- Though it requires technical expertise and organizational change, unbundling itself is unlikely to result in substantial efficiency gain if each function of the sector remains uncompetitive (Thomas, 2006).
- In the case of the four countries where competition in both wholesale and retail markets is still at the primary stage, it should be best for governments to first focus on developing sustainable competition, price transparency and efficiency gains.

Introducing Independent Regulators

- Since there is little competition in the electricity sector of the four countries, regulatory bodies are needed to mimic competitive market conducts, promote efficiency and ensure fair practices. To achieve such outcomes, regulatory bodies should be independent from political influences and understand complex conditions and problems of the electricity sector in each market. So far, none of the four countries has established a regulatory body to serve such functions.

Concluding remarks

- Regional energy cooperation and integration is one of the most promising and cost-effective options for Asia, to further the development of its energy sector, in order to gain the environmental, social and economic benefits accruing from a more efficient use of resources. Four major benefits are associated with regional energy integration:

- (1) Improved security of supply;
- (2) Better economic efficiency;
- (3) Enhanced environmental quality; and
- (4) Development of renewable resources.

- A crucial issue is the need to facilitate the formation and expansion of interconnected systems and power pools and development of regional transmission infrastructure for power transmission and market expansion.