



ASIA NOW: NAVIGATING THE ASEAN REGION

Electric Power Systems

INDONESIA



Market Overview

Generation capacity – 24.57 GW
Growth in electricity demand – 8%
Fuel mix – oil-51.66%, hydro-3.11%, geothermal-1.32%, coal-15.34%, gas-28.57%
Total imports of electrical power equipment – \$898 mil (2007 est.)
U.S. market share – 14%

Best Prospects

- Turbines & parts
- Equipment for Substations and parts
- Transmission lines and systems

MALAYSIA



Market Overview

Generation capacity – 21 GW
Growth in electricity demand – 7%
Fuel mix – gas-58%, coal-34%, hydro-5.5%, oil-1%
Total imports of transmission and distribution equipment – \$800 mil
U.S. market share – 11%

Best Prospects

- Gas turbines
- Transformers, static converters & inductors
- Capacitors
- Circuit breakers & controls

PHILIPPINES



Market Overview

Installed Generation Capacity – 15.9GW (2007)
Growth in electricity demand – 7%
Fuel mix – coal-26%, gas-18%, geothermal-12%, hydro-21%, oil-23%, renewable - <1%
Total imports of electrical power equipment – \$698 mil (2006 est.)

Best Prospects

- Metering Devices
- Transmission & Distribution Hardware
- Protection Devices
- Transformers
- Energy Efficiency Products

SINGAPORE



Market Overview

Generation capacity – 11.5 GW
Growth in electricity demand – 5%
Fuel mix – gas-70%, oil-30%
U.S. market share of imports of transmission and distribution equipment – 20% (2007 estimates)

Best Prospects

- Micro power systems or generator sets for chemical & semicon industries
- Power quality equipment
- Future LNG terminal

THAILAND



Market Overview

Generation capacity – 28.52 GW
Growth in electricity demand – 5%
Fuel mix – gas-65.8%, coal-21.6%, hydro-7.1%, renewable-1.6%, oil and others – 3.9%
Total imports of electrical power equipment – \$3.6 bil
U.S. market share – 8.10%

Best Prospects

- Generators, parts, and nuclear power technology
- Power transmission & distribution equipment
- Substations equipment
- Energy efficiency equipment

VIETNAM



Market Overview




Generation capacity – 12.270 MW
Growth in electricity demand – 17%
Fuel mix – gas-39%, oil and imported electricity-11%, coal-13%, hydro-37%
Total imports of transmission and distribution equipment – \$1.3B
U.S. market share – 6%

Best Prospects




Best Prospects in various power generation, transmission and distribution equipment and services.

Market Specifics

The ASEAN governments are committed to attracting private sector participation and investment in the ASEAN energy sector and have agreed to work collectively in moving forward ASEAN Power Grid Projects. Studies indicate that there are 11 potential power interconnection projects for implementation up to 2020. The ASEAN nations are presently working on a MOU that will provide a framework for a common ASEAN policy on power interconnection and trade.

	Indonesia 	Malaysia 	Philippines 
Governing Body	Ministry of Energy and Mineral Resources	Ministry of Energy, Water and Communications	Department of Energy
Regulation	Electricity Law No. 15/1985 Government Regulation No. 3/2005	Energy Commission Act 2001 Electricity Supply Act 1990 Gas Supply Act 1993 Electricity Supply Regulations 1994 Gas Supply Regulations 1997	Electric Power Industry Reform Act (2001)
Electricity Generation	PT PLN IPPs	Tenaga Nasional Berhad Sabah Electricity Sdn Bhd Sarawak Electricity Supply Corp IPPs	National Power Corporation (NAPCOR) IPPs
Electricity Transmission	PT PLN	Tenaga Nasional Berhad Sabah Electricity Sdn Bhd Sarawak Electricity Supply Corp	National Transmission Corporation (TransCo)
Electricity Distribution	PT PLN	Tenaga Nasional Berhad Sabah Electricity Sdn Bhd Sarawak Electricity Supply Corp	Manila Electric Company Electric Cooperatives Private Distribution Utilities
Major IPPs	PT Paiton Energy PT Central Jawa Power PT Jawa Power	YTL Power Generation Segari Energy Ventures Genting Sanyen Ranhill Berhad	FirstGen , TeaM Energy , CAL Energy , KEPCO , InterGen
Market Research	Electric Power Sector (4/07)	Power Generation Equipment & Services (8/04)	Electric Power Industry (12/07)
Trade Shows	Electric Indonesia 2009 Oct 14-17, 2009, Jakarta	Tenaga 2009 (www.aseanelenex.com) Jul 2009, Kuala Lumpur	Power Trends Sep 2009, Manila (tentative)
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Market Specifics

	Singapore 	Thailand 	Vietnam 
Governing Body	Energy Market Authority	Ministry of Energy	Ministry of Industry and Trade (http://www.moit.gov.vn)
Regulation	Electricity Act 2001 Gas Act 2008 (amended) District Cooling Act 2001	Office of the Prime Minister's Regulation on the Electricity Regulatory Commission B.E. 2548 (2005)	Electricity Act 2005
Electricity Generation	Senoko Power Ltd PowerSeraya Ltd Tuas Power Ltd SembCorp Cogen Pte Ltd Island Power Company Pte Ltd Keppel Merlimau Cogen Pte Ltd National Environment Agency (Above companies have license to generate)	Electricity Generating Authority (EGAT) IPPs SPPs	Electricity of Vietnam (EVN) (http://www.evn.com.vn) IPPs
Electricity Transmission	SP Power Assets Ltd SP PowerGrid Ltd (Both companies handle distribution as well)	Electricity Generating Authority (EGAT)	Electricity of Vietnam (EVN) (http://www.evn.com.vn)
Electricity Distribution	Keppel Electric Pte Ltd SembCorp Pte Ltd Tuas Power Supply Pte Ltd Senoko Energy Supply Pte Ltd Seraya Energy Pte Ltd Island Power Supply Pte Ltd (Above companies are retailers and do not distribute)	Metropolitan Electricity Authority (MEA) Provincial Electricity Authority (PEA)	Electricity of Vietnam (EVN) (http://www.evn.com.vn)
IPPs	(Not applicable but Singapore has only one licensed energy trader and there are plans for future liberalization)	Tri-Energy Independent Power Eastern Power & Electric Co BLCP Power	Many IPPs
Market Research	None available	Electric Power Eq. Opportunities http://www.buyusainfo.net/docs/x_3754692.pdf	Oil and Gas-Fired, Hydro Power Generation Equipment and Services MR Reports (12/2005) Vietnam Electric Power Generation (12/2006)
Trade Shows	PowerGen Asia 2008 Oct 2008, Malaysia	PowerGen Asia; http://pga08.events.pennnet.com/fl/index.cfm October 21-23 2008, KL, Malaysia	Vietnam Oil and Gas Expo, HCMC, November 18-20, 2009 Vietnam Electricity Expo, Hanoi, November 18-20, 2008
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