

CHAPTER 1: INTRODUCTION

1.1 Siemens' Power Generation Company's Profile

1.1.2 Company Background

Siemens Power Generation Asia Pasific Sdn Bhd (Spg) was set up in order to support Siemens KWU in the power generation market in the region of South East Asia and Australasia. (Siemens Annual Report 1999)

1.1.3 Siemens Power Generation Asia Pasific Sdn Bhd (Spg)

SPG is an wholly owned subsidiary of Siemens AG and was locally incorporated on December 24, 1993, in Malaysia.

The company's mission is to build up in Malaysia the SIEMENS POWER GENERATION Competence and Engineering Centre for the Asia Pacific region. Their technology base in Germany, but they are at home all over the world. For them, "home" is where their customers are. (Siemens Annual Report 1999)

As a supplier of turnkey plants, Siemens do not see themselves merely as a supplier of technology, but as a partner in all phases of a power plant project, from feasibility studies and cost-benefit analysis, via financing, right through the actual implementation and service. Partnership and cooperation agreements with local companies make it possible to increase the local added value.

Finally, Siemens' reliable, rapid services worldwide guarantees a consistently high level of cost-effectiveness, availability and safety during the long service life of a powerplant.

In Malaysia Siemens headquarters is located at :
Level 1 Reception, C P Tower,
11 Section 16/11, Jalan Damansara,
46350 Petaling Jaya. (Siemens Annual Report 1999)

1.2 Siemens's Success

1.2.1 The Company History of Siemens Power Generation(SPG)

1994

- Setting a world record completion time of 22 months for the construction of Paka and Pasir Gudang Stations in Malaysia.

1997

- Received ISO 9001 certification for International Standard for Quality Management System.

1998

- "Project of the Year 97" Award bestowed on Senako Power Plant in Singapore by " Power Engineering International" Journal.
- Completion of Amata EGCO Bang Pakong Power Plant in Thailand ahead od schedule.
- Responsible for a wider region with the inclusion of 60-Hz power market as the result of intergration with Westinghouse Power Generation.
- Setting a world record completion time of 23 days for the major overhaul of V94.2 gas turbine at Paka Power Station in Malaysia.

1999

- Repositioning of operations of Siemens Power Generation Division P from Erlangen to Kuala Lumpur.

1.2.2 Fossil-Fueled Power Plants And Services

Given below are the fossil-fueled power plants and services around the Asia-Pacific region:

Amata EGCO Bang Pakong, Thailand (Turnkey Contract) – Combined-Cycle Power Plant (1 X GUD 2.64.3 Blocks), 170 MW.

Townsville Power Station, Brisbane, Australia (Turnkey Contract) – Gas Turbine Power Plant (1 X V94.2 Gas Turbine), 160 MW.

Oakey Gas Turbine Power Plant, Australia (Turnkey Contract) – Gas Turbine Power Plant (2 X V94.2 Gas Turbine), 320 MW.

Phu My 2.1 – Extension, Vietnam (Turnkey Contract) – Gas Turbine Power Plant (2 X V94.2 Gas Turbine), 320 MW

Santa Rita Combined-Cycle Power Plant, Philippines (Turnkey Contract) – 60Hz Single-Shaft Power Plant (GUD 1S), 1000 MW.

Connaught Bridge Power Station, Malaysia – Major overhaul and life time extension program on a V94.2 gas turbine and generator set.

Senako Power Station, Singapore – Plant Extension of Combined-Cycle and major overhaul of a V94.2 gas turbines.

Paka and Pasir Gudang Power Station, Malaysia – minor inspection on six gas turbines.

Serdang and Connaught Bridge Power Station, Malaysia – Supply of components and spare parts of 5 V94.2 gas turbines for a period of 3 years.

Paka and Pasir Gudang Power Station, Malaysia – Hot gas path inspection on a 2 V94.2 gas turbines, steam turbines and generators.

Serdang and Connaught Bridge Power Station, Malaysia – Hot gas path inspection and major overhauls on V94.2 gas turbines and generators.
(Latest Siemens Corporate Brochure – Supplied by the Corporate Communications Dept)

1.2.3 Industrial Turbines And Power Plants

Given below are the industrial turbines and power plants around the Asia-Pacific region:

CCPP Emdeki Utama, Indonesia - (Turnkey Contract) – Combined-Cycle Power Plant of 15.5 MW.

CSR Holdings, Queensland, Australia – Small Power Plant consisting of a steam turbine generator set with a power output of 39 MW.

Shell, Port Dickson, Malaysia – Power Plant within Shell Refinery consisting of a steam turbine generator set with a power output of 45 MW.
(Latest Siemens Corporate Brochure)

1.2.4 INSTRUMENTATION AND CONTROL SYSTEMS

Port Dickson, Prai, and Pasir Gudang Power Stations, Malaysia – Power Plant Rehabilitation.

Petronas Centralised Utility Facilities Project, Kertih, Malaysia – Supply of Central Control and Monitoring System. (Latest Siemens Corporate Brochure)

1.3 Strategy 2000 – Overall Strategy

The overall strategy of Siemens in 2000 was "Power for Generations".

- To be the most responsive source of solutions to improve customer operating plant competitiveness and profitability

- Global in vision, capabilities, and performance
- Locally focused by remaining field based and through customer intimacy
- Committed to operating plant service
- A supplier of innovative and environmentally responsible technology-based solutions to enable their customers to improve profitability
- A company which enhances group financial performance to maintain long term industry leadership and market success

(Siemens Latest Annual Report 1999)

1.4 Power Generation Group (KWU)

The Mission Statement of the Power Generation Group (KWU) is to:

- Resolve gas turbine issues
- Implement world-class supply logistics management
- Successfully reconfigure manufacturing network
- Achieve all PCI costs targets
- Achieve step-change improvement in asset management
- Transform the organization to be service driven
- Achieve annual Economic Value Targets (EVA)

(Siemens Annual Report 1999)

1.5 Purpose and Significance of the Study

Power developers are having to cope with monumental changes in all areas of their operations as the major electricity markets across the world deregulate. Remodelling of company structures, greater emphasis on costs, infiltrating foreign markets and expanding the range of services offered are some of the avenues open to the new breed of power developers emerging from deregulation, such as Siemens, Alstom [formerly ABB (Asea Brown Boveri)], General Electric (GE), Mitsubishi Heavy Industries.

A distinct trend is the shift in company structure towards either deverticalisation, where generation and supply are split from transmission, or in the opposite direction towards vertical integration. Power developers continue to restructure their internal operations coming with trading and risk management operations coming to the fore and marketing departments taking shape, whilst other departments face reductions in the workforce. As power generation now find themselves in the middle of a competitive marketplace, they have to achieve suitable margins by cutting costs, often in the workplace or in opting for cheaper power generation methods. Deregulation is also allowing power developers to look for new opportunities in the emerging power markets of Asia, Latin America and Eastern Europe. (International Power Generation, 1999)

Power producers worldwide are taking a bold new look at the way they do business. In today's market-driven economy, issues like privatization and deregulation have created a competitive, quickly changing business environment that poses new challenges for everyone involved. Markets that were strongly technology-driven in the past are now increasingly sensitive to market forces. As a result, low power generation cost is quickly becoming the most important factor for success among power producers. Reliable planning, expedited licensing and approval as well as quick project implementation are absolutely essential to ensure a project's success. In a dynamic global market, power producers need a high-value solution, which fits their individual requirements and allows them to amortize their initial investment quickly. A solution that continually provides efficient, reliable operation with low maintenance requirements for an attractive return on investment throughout the plant's life cycle.

(Siemens Corporate Brochure)

1.6 The Objective of the Study

The objective of this study is to evaluate Siemen's Business Strategy in its Power Generation market in Malaysia. This is achieved by revealing Siemen's existing business strategy and procedures in Malaysia.

1.7 The Scope and Limitations of this Study

This study concentrates on power generation with specific reference to Malaysia only.

Power generation market is basically divided into two categories :

(1) utilizing fossil fuels such as gas, coal ;

(2) non-fossil fuels such as hydro, nuclear and solar. (Siemens Annual Report 1999)

This study is limited to an exploration of the former. Another limitation is that this study does not include other Siemens's subsidiaries such as Siemens's Transmission and Distribution.

1.8 Organization of the Study

This study has been divided into five chapters. The first chapter introduces the study, general description of the company, states its objective, defines its scope and limitations etc. The second chapter reviews the methodology adopted in the research. The third chapter analyze the company operations. The fourth chapter describes the findings of the study by the inclusion of research results and the concluding chapter interpret and discuss these findings through drawing conclusions and making recommendations.