

President / Chief Executive Officer's Review

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Dato' Pian bin Sukro
President/Chief Executive Officer

INTRODUCTION

The financial years of 2002 and 2003 saw Tenaga Nasional Berhad undergoing a transformation process – reinventing itself to better serve customers and powering Malaysia’s future growth.

TRANSFORMATION

In 2002, TNB announced a new Transformation Plan, designed to redefine operations, reduce costs and expand profit margins while continuing to innovate, expand business growth and deliver a culture of quality and excellence. The transformation also called for a more focused, efficient and capable organisation able to deliver more value to our customers and shareholders. As a result, TNB adopted new and better ways of doing the electricity business, transforming the methodologies of its operations, improving its human resource through change management, employing the tools of Information Communication Technology and committing an excellence culture among employees.

At the heart of this transformation are seven building blocks that form the foundations to our quest for success, that will stimulate change and improvement within TNB. These building blocks are Strategy and Direction, Planning and Budgeting, Organisational Structure, Business Process Reengineering, Performance Management, Technology and Competency, and Shared Values and Culture. The T7 strategy is an innovative five-year initiative by attaining the tiger scenario which aims to make it among the best run corporations in Malaysia by 2007.

The results achieved from the T7 initiatives have been encouraging with significant improvements recorded by the core business divisions in their key performance indicators. Eight additional key initiatives were added to the first 38 key initiatives developed in 2002. Today, 46 key initiatives have been implemented with eight as corporate programmes.

The Company has articulated and communicated a clear direction on its strategies across the organisation, focusing on effective cost management and operational improvement.

Three organisation mechanisms are now in place to ensure successful implementation of the strategies:-

- A realigned business planning and budgeting process
- A streamlined organisation structure
- A performance tracking system to monitor progress/shortfall

TNB has institutionalised a redesigned and realigned planning and budgeting process across the Company that will support our overall strategy. The Company has regrouped and reconsolidated the corporate structure aimed at aligning our business activities to the core business of generation, transmission and distribution of electricity in the most efficient and reliable manner. We have begun implementing a performance management system where all top management team members have been assigned to meet targets and key performance indicators.

The Company has also embarked on a business process redesign via the Enterprise Resource Management System (ERMS) project to streamline current business processes in relation to the new TNB structure and to enhance key business processes to facilitate the achievement of corporate strategy. TNB is also putting emphasis on the technology know-how and the enhancement of the competencies in the various disciplines within the organisation so that they are in sync with the technology and business requirements of the organisation.

A crucial enabler to achieve all of the above is the performance-based culture that rests with the workforce through the entrenchment of shared values. This key initiative has been started with all the top management team members engaged in a facilitated discussion on "living and embedding the shared values".

To ensure successful achievement of the strategies, all divisions have been diligently implementing their respective identified initiatives and the associated activities. It has yielded at least 60 per cent in the projected value for the first year.

To further enhance the success of transformation, the management has readjusted the building blocks. The "Culture" block is now merged with "Shared Values" and in its place a new block (Technology and Competency) has been introduced. The introduction of the new block is to ensure that the organisation is in pace with technological advancements that are related and have an impact on business activities and survival. The competency level of the workforce is always at the highest point and in sync with the business and technology requirements.

We are striving to strengthen our leadership edge. TNB anticipates more significant benefits from these transformation initiatives. It is expected that innovations, operational efficiencies and savings derived from these initiatives will provide additional avenues for greater profitability. With the promise of profitable growth, the transformation of TNB will indeed be electrifying.

I am pleased to report that TNB delivered a fairly good operational performance despite the serious economic challenges that confronted the country and region. The year 2003 was truly an inflection point in the transformation of TNB, characterised by across-the-board strategic progress as well as operational results that met or exceeded targets. As you review this report, you will appreciate the Transformation permeating your Company and Group.



CORE BUSINESS GROUP

Four core components drive the business of TNB and they are Generation, Transmission, Distribution and Sabah Electricity Sdn Bhd.

GENERATION DIVISION

Electricity Generation

The generation of electricity in Peninsular Malaysia is undertaken by TNB and IPPs. The Generation Division is responsible for TNB's power generation asset development, operations and maintenance. TNB's power generation capacity of 10,153.5MW contributes 60 per cent of the total capacity of 16,987.5MW in Peninsular Malaysia.

Consolidating The Generation Business

The Generation Division is responsible for all business activities in power generation. The operations of the thermal and hydro plants formerly operated by TNB Generation Sdn Bhd and TNB Hidro Sdn Bhd respectively, have now been taken over by TNB through the Generation Division. Similarly, the development of new generating assets, formerly carried out by TNB Engineers Sdn Bhd, is now under the responsibility of the division.

The development, operations and ownership of coal-fired Manjung Power Station would however continue to be under TNB Janamanjung Sdn Bhd (TNBJ) along the IPP model. TNBJ is currently a wholly-owned subsidiary of TNB. The division is also responsible for TNB Liberty Power Limited, TNB's wholly-owned IPP operating in Pakistan.

Reorganising The Division

With the consolidation of TNB's total generation business under the Generation Division, the structure of the division has been streamlined to focus on the core activities of power generation. With this reorganisation, all generation-related activities, ie, development, operations, maintenance and support services report to the Vice President (Generation). This includes subsidiaries involved in the power generation business such as TNBJ and TNB Liberty Power Limited.

Transforming Generation

To provide the step change needed to achieve the goals of the organisation, a series of strategic initiatives have been identified. These initiatives focus on the key elements of the business such as unplanned outage, project delays and competency development. In addition, improvement measures in the areas of finance, customer satisfaction, internal processes and employee growth, are also being implemented to complete the transformation process.

In the past year, significant improvements in availability and reliability of coal-fired power plants have been achieved. Improvements in project delivery have resulted in the timely commissioning of the Manjung Power Station. Other successes include the use of cheaper alternative parts and the implementation of the emergency procurement process designed to expedite the delivery of parts in times of exigency.



Power Plant Operations

Over the last fifty years, the Generation Division has developed its expertise to operate, maintain and manage several power plants of various types and fuel mix.

In Peninsular Malaysia, the Thermal Operations Department of the division operates seven thermal power stations with a total installed capacity of 6,863MW. TNB operates another 2,100MW from its oil and coal-fired power plant. In addition, the Hydro Department of the division also operates hydroelectric power generation through three main schemes with a total installed capacity of 1,910.5MW.

TNB's thermal plants produce power using conventional steam turbine generators' principally fired by coal, oil or natural gas (steam power plant), gas-fired or diesel-fired open cycle gas turbine generators (open cycle gas turbines), and gas-fired or diesel-fired combined cycle turbine generators (combined cycle plant). TNB's hydro stations consist both run-of-the-river and pondage stations. In addition to producing power from its own generating facilities and purchasing power from the IPPs, TNB also purchases small amounts of electricity from the Electricity Generating Authority of Thailand (EGAT) and Singapore Power (SP) to satisfy peak demand.

All thermal and hydro power stations in the division have been accredited under ISO 9000. In addition, all thermal power stations including the Sultan Mahmud and Chenderoh hydro power stations are also accredited with the ISO 14000 certifications.

Generation Thermal Plant Capacity

Thermal Power Plant		
Station	Capacity	Plant Type
Sultan Ismail, Paka	1,139MW	3 X 290MW Combined Cycle 1 X 269MW Combined Cycle
Sultan Iskandar, Pasir Gudang	729MW	2 X 110MW Open Cycle Gas Turbine 1 X 269MW Combined Cycle Plant 2 X 120MW Conventional Thermal (Oil/Gas)
Tuanku Jaafar, Port Dickson	360MW	3 X 120MW Conventional Thermal (Oil/Gas)
Serdang	625MW	2 X 110MW Open Cycle Gas Turbine 3 X 135MW Open Cycle Gas Turbine
Sultan Salahuddin Abdul Aziz, Kapar	2,420MW	2 X 300MW Conventional Thermal (Oil/Gas) 2 X 300MW Conventional Thermal (Oil/Gas/Coal) 2 X 500MW Conventional Thermal (Oil/Gas) 2 X 110MW Open Cycle Gas Turbine
Connaught Bridge	832MW	1 X 312MW Combined Cycle 4 X 130MW Open Cycle Gas Turbine
Prai	758MW	3 X 120MW Conventional Thermal (Oil/Gas) 3 X 110MW Combined Cycle 2 X 34MW Open Cycle Gas Turbine (Diesel)
Total	6,863MW	



Generation Division Hydro Plant Capacity

	Hydroelectric Scheme	Total Installed Capacity (MW)
1	Sg Perak including Pergau and Chenderoh	1248.0MW
2	Cameron Highlands	262.5MW
3	Sultan Mahmud, Kenyir	400.0MW
	Total	1,910.5MW

Generation Subsidiaries

TNB Janamanjung Sdn Bhd

TNB Janamanjung Sdn Bhd (TNBJ) is responsible for the development of the largest coal-fired power plant in the country, ie, the 2,100MW (3 X 700MW) Power Station project in Manjung, Perak Darul Ridzuan. The first unit of the Manjung Power Station successfully achieved commercial operation on 21 April 2003 followed by Unit 2 on 20 August 2003 and Unit 3 on 25 September 2003.

The full operation of the Manjung Power Station is expected to contribute an additional 13,000GWh per year into the system which is equivalent to 14 per cent of current total annual demand. This station will consume a total of 5.5 million tonnes of coal a year while meeting the WHO Environmental Emission Standards (EMS).

TNB Liberty Power Limited

TNB Liberty Power Limited (TLPL) is a wholly-owned subsidiary of TNB Power Daharki Limited (PDL), an investment holding company of TNB. TLPL is to develop and operate a 470MW gross capacity combined cycle natural gas-fired power plant in two phases at Mirpur Mathello, Province of Sindh, Pakistan. Phase I with a gross capacity of 235MW was commissioned on 24 August 2001 and achieved its Commercial Operation Date (COD) on 10 September 2001.



Services

Generation Asset Development & Hydro Department

New power stations are commissioned from time to time in order to meet the increasing national demand for electricity and the sources of energy for TNB's power stations include oil, gas, coal and hydropower. This is consistent with TNB's Four Fuel Policy which is aimed at utilising the four indigenous sources of energy to provide a more diversified electricity generation mix in ensuring the reliability and security of the nation's power supply.

GADH is responsible for the development of new generation assets to be owned by TNB. GADH provides the project management and engineering services for the implementation of TNB's generation projects.

GADH strives to improve the technical specifications, streamline work processes, automate communication links and update conditions of contract for the implementation of power plants. The department also continuously reviews and re-engineers its internal processes to improve operating efficiencies and enhance engineering excellence in order to ensure the smooth implementation and timely completion of projects. In its quest to promote professionalism and effective management principles, the department also gives priority to human resource training and development.

The generation asset development projects under tendering or construction stage during the financial year 2003 are:-

Project Name	Description
Port Dickson Phase I	To build a 750MW Combined Cycle plant to replace the old 4 X 60MW Conventional Thermal plants at Port Dickson, Negeri Sembilan.
Pulau Bunting Project	To build a 220MW Open Cycle Gas Turbine in Kedah.
Kenyir II	To add 2 X 150MW hydroelectric generating units at Kenyir Power Station, Terengganu. Total power station capacity will increase to 700MW.
Cameron Highlands & Batang Padang Life Extension Project	To rehabilitate the Cameron Highlands & Batang Padang Hydroelectric Schemes in Pahang and Perak respectively and consisting of seven power stations which were constructed between 1959 and 1968.

TNB Repair And Maintenance Sdn Bhd

As a wholly owned subsidiary, TNB Repair and Maintenance Sdn Bhd (REMACO) provides repair, maintenance, refurbishment and test services for power plants, particularly, gas turbines. It actively markets its services to the power generation sector, locally and within the ASEAN region. To date, REMACO has secured works with several IPPs.

REMACO has been accredited with an ISO 9001:2000 and is actively pursuing strategic partnerships with Original Equipment Manufacturers (OEM) and other service providers to expand its capabilities.

During the period under review, REMACO has realigned its strategies to contribute towards achieving T7 goals by:-

- Increasing service and product offerings to TNB core divisions,
- Optimising plant outage duration and minimising maintenance costs for TNB power plants, and,
- Increasing sales to non-TNB markets, within ASEAN and the Middle East region.

To sustain a competitive advantage in facing global challenges, REMACO provides avenues for workforce development to enhance the competencies and skills of its human capital.

