

## 2. POWER AND ENERGY EQUIPMENT AND SERVICES\*



- **Opportunities exist in generation, high voltage transmission and low voltage distribution equipment including equipment such as SCADA (supervisory control and data acquisition), power line carriers, current transformers and reactors, and switchgear. Service opportunities exist in such areas as utility swapping and on-site training.**

Malaysia's GDP growth of over 8% per annum over the past seven years has been mirrored in an even more rapid increase in demand for electricity. The Economic Planning Unit of the Prime Minister's Office anticipates the growth rate will be 14% per annum for the immediate future.

Peak demand for electricity grew from 3840 megawatts (MW) in 1990 to 5530MW in 1993, a rate of increase of 13% per annum.

Surging demand began to outstrip supply in the early 1990s prompting the state power utility (Tenaga Nasional Berhad or TNB) to launch a fast track program to bring on additional capacity. Five independent power producers (IPPs) have also been approved and will bring some 4500MW of capacity on line this year. All of the IPPs and virtually all of TNB's fast track plants are gas-fired turbines. This means that 75% of Malaysia's electrical power will be generated by gas by the end of 1995. In order to move towards a more balanced four-fuel (i.e. oil, gas, coal and hydro) position, the next few years will see hydro- and coal-fired plants being emphasized. The main project in the pipeline at present is the 2400MW, C\$8-billion Bakun hydroelectric project which will transmit power from Sarawak, on the island of Borneo, to peninsular Malaysia.

With a comfortable reserve margin now in place, increased emphasis is being placed on upgrading the transmission and distribution systems. TNB plans to invest some RM30 to RM40 billion over the next 5 years in this area including the construction of a number of 500-kilovolt transmission lines. There is considerable opportunity for Canadian manufacturers, especially ones willing consider local manufacturing operations, to help supply this massive systems upgrading.

Where a sufficiently large local market exists for the product, a carefully selected joint venture manufacturing partner will help to ensure success. Malaysian law generally requires new companies to have at least one Malay partner. Companies with a constant presence in Malaysia have a distinct advantage in the market. Common means of ensuring presence include engaging a local agent or establishing an association with a local manufacturing company.

\*For further information on this sector, please contact the Canadian High Commission in Malaysia.