- There is strong competition from foreign countries and from domestic manufacturers.
- In Hong Kong, the construction industry is well-established and sophisticated.
   Competition is intense. A local presence is important and price is a major consideration.

# **Action Plan**

The objectives of the Action Plan in this sector are as follows:

- to increase Chinese awareness and knowledge of Canadian products and technologies through missions, trade shows and technical seminars;
- to provide more detailed information and advice on opportunities for products and services, the state of the market development and regulatory environment, as well as the availability of export financing;
- to use projects such as the energy efficiency in buildings project initiated by the Canadian International Development Agency (CIDA), and the Canada Mortgage and Housing Corporation (CMHC) housing demonstration project in Shanghai, to introduce Canadian products and services in China;
- to introduce projects leading to the export of building products and services, in the course of preparing an action plan for the Memorandum of Understanding (MOU) between the Chinese Ministry of Construction and Public Works and Government Services Canada (PWGSC) and CMHC; and
- to assist Canadian companies in finding local representatives, agents, and joint venture and other business partners in China.

# **ELECTRIC POWER**

## **Business Environment**

China's Ninth Five-Year Plan (1996-2000) identified the power sector as a clear priority. Although China is currently the second-largest power-producing country in the world, after the United States, it must add more than the equivalent of a James Bay project per year just to meet existing demand.

#### Profile:

- Installed capacity has almost tripled since 1987, to more than 235 000 megawatts
- National objective: 300 000 megawatts by the year 2000; 500,000 megawatts by the year 2020

Thermal power is China's main source of power at 76 percent. Hydro accounts for 23 percent, followed by nuclear and other sources at less than 1 percent. It is expected that by the year 2000, the share of thermal power will rise to over 80 percent, hydro will drop to 16 percent, while nuclear and other sources will remain in the range of 1 percent.

As part of the Chinese government's ongoing efforts to establish a more rational commercial footing for ongoing power development, the operating assets of the Ministry of Electric Power have been transferred to the newly established State Power Corporation. The Ministry of Electric Power will continue to be responsible for policy and regulatory functions until these are transferred to a yet-to-be-determined central government organization, likely in 1998.

Regulatory developments have been slower.

Although the Electricity Law came into effect in April 1996, a number of the ancillary implementing

regulations, including those on power pricing, are still pending. Similarly, additional regulations in areas specific to foreign involvement in the sector have only recently been released. Based on experience with several pilot projects, the government is also drawing up guidelines for build-operate-transfer (BOT) projects, which will focus on thermal power plants and on hydro power plants under 250 megawatts.

# **Market Opportunities**

It is estimated that up to 30 percent of the projected capacity increase in energy supply by the year 2000 will be provided by international firms, with the balance supplied domestically.

Following recent reorganization, local governments and organizations are being called on to take a more proactive role in the development and financing of hydro, thermal and co-generation power projects, although approvals from central levels will still be required for larger projects (i.e. over US\$30 million). Financing for these projects continues to pose a major challenge. Although international financial institutions (IFIs) have been a major source of funding for the sector, their involvement is decreasing.

While there are increasing opportunities for independent power projects (IPPs), these need to be considered carefully, with due diligence accorded to the regulatory environment, which continues to develop. It is reported that a number of foreign investors are switching their attention from large power projects to smaller ones because of problems with financing and bureaucracy. A number of private developers, many based in Hong Kong, are exploring IPP opportunities in China, offering another way for Canadian suppliers of goods and services to enter the market.

Further nuclear power development is planned, particularly in wealthier coastal areas that lack energy resources. Refurbishment of existing power plants and the long-neglected transmission network are also priorities, as is rural electrification.

## **Constraints**

Overall, financing remains the key constraint. In order to reach its goal for the year 2000, it has been estimated that China will need to invest about US\$100 billion in the power sector alone. Authorities hope that as much as 20 percent of that financing will come from foreign sources, including some 35 000 megawatts of IPPs. Ongoing work on restructuring the sector and on developing an improved regulatory environment is designed to address long-standing shortcomings that have led to stagnation of the sector over recent years. Success hinges on the government's commitment to addressing the expressed concerns of the international business community, including the lack of clarity in the regulatory environment concerning foreign investment guarantees, electricity pricing, rates of return, etc.

Notwithstanding fierce competition in the sector, Canadian suppliers have been successful in exporting power sector equipment and expertise to China, much of it to projects funded by IFIs, and Canadian expertise is widely acknowledged. Engineering firms are now finding, however, that an ongoing presence in the market requires a more complex involvement and the ability to package a range of products and services, in addition to financing. Equipment suppliers face demands for technology transfer and localization of manufacturing, as well as onerous inspection standards for equipment imported to China.



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