Huge potential for alternative energy

"New energy" market heats up in Japan

Japan's "new energy" policies reflect its strong commitment to the Kyoto Protocol: The country intends to increase the proportion of energy generated from emerging energy technologies and renewable sources from 0.5% to 3.0% by 2010. Japan's new policies include start-up subsidies for entrants into the new energy market, and stricter regulations for electric power utilities that will ensure a bigger share of their power output is derived from "new energy" sources. "New energy" is defined as emerging energy technologies and renewable energy, essentially cleaner alternatives to fossil fuel.

Market overview

The development and commercialization of new energy technologies in Japan is funded largely by Japanese automakers and power companies, which have been investing heavily in alternative fuel/natural gas/hybrid projects for many years. As a result, Japan plans to have 50,000 fuel cell (FC) cars and up to 10 million Low Emission Vehicles (LEVs) on the road by 2010, fuelled by an FC generating capacity of 2,200 MW. Corporate giants such as Toshiba and Matsushita have also been investing considerable R&D into new energy technologies.

The Japanese government is accelerating the move from "old" to "new" energy through direct funding and support for public and private organizations that promote clean energy. These include the Organization for the Promotion of Low Emission Vehicles (LEVO) (**www.levo.or.jp**), the New Energy and Industrial Technology Development Organization (NEDO) (**www.nedo.go.jp/english**), the Japan Gas Association, the Japan Electric Vehicle Association, and the Fuel Cell Commercialization Committee of Japan.

Canadian capabilities

Given that about 17% of Canada's primary energy supply is derived from renewable resources, we are well-positioned to take advantage of new energy market opportunities in Japan.

Our expertise includes the clean production of hydrogen, innovative solutions for alternative energy storage and infrastructure, cost-effective conversion kits for diesel vehicles, automotive fuel cell technology, solar walls for industrial preheating, home insulation, wind power, photovoltaic power, and bio fuel technology.

The new generation of new energy companies in Canada includes automotive fuel cell developer **Ballard Power Systems** (**www.ballard.com**), alternative fuel specialists **Methanex** (**www.methanex.com**) and **Stuart Energy** (**www.stuartenergy.com**), and **Dynetek Industries Ltd.** (**www.dynatek.com**), a manufacturer of advanced, lightweight fuel storage systems.

Opportunities

Japan's new policies are sparking demands for new energy equipment and services in the following areas:

- Hydrogen, methane, and liquified natural gas (LNG);
- Reformation/electrolysis:
- Storage and fuelling infrastructure;
- FC components and associated testing apparatus;
- Fuel conversion equipment (i.e. diesel to natural gas);
- Stationary co-generation and back-up power applications;
- Portable FC alternatives to lithium batteries;
- Consultancy services.

Technical prowess notwithstanding, Canadian companies must partner with Japanese firms to be successful, and must apply a long-term and focused marketing strategy.

Steps to success

The Canadian Embassy is involved in a number of activities to help Canadian new energy companies enter the Japanese market:

- **Disseminating market information and intelligence —** Industry Canada, Natural Resources Canada, DFAIT, and the Canadian Embassy have formed a "new energy" team focused on automobile and stationary applications for alternative energy.
- **Seminars and industry-sponsored events —** Canada's leadership in new energy will be showcased during the **Tokyo Automobile Show** in November 2002. A fuel cell symposium will be held in Tokyo at the same time, and a Canadian booth will be organized at the **CEPSI** trade show (**www.cepsi2002.com**).
- **Outreach activities —** Relevant companies, trade associations, and government bodies in Japan have been contacted.

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Bidding games begin

Beijing prepares for the Olympics (part two)

*This is the second and last part of the report on contracts totalling US$14 billion to be awarded by Beijing as it prepares for the **2008 Summer Olympics**.*

The Master Plan for the Olympics has recently been released, and provides guidelines for planning, identification of tasks, and the coordination and implementation of Beijing's upcoming development projects. The first of the documents for venue and infrastructure bidding were released in April 2002, and most contracts will be awarded by mid-2003.

Canadian involvement can take the form of joint ventures, technological cooperation, build-operate-transfer (BOT) rights. China is committed to a transparent bidding process (foreign and domestic firms on equal footing).

Massive construction

The construction of sporting venues will cost over US$1.6 billion. Of the 37 proposed competition sites, 10 will require no construction, five will undergo renovation (e.g. Olympic Sports Center Stadium, a softball field, and an equestrian park), and 22 new buildings will be erected.

The Beijing Municipal Planning Commission has begun soliciting bids for the conceptual planning and design schemes for the Olympic Green and the Wukesong Cultural and Sports Centre, two large-scale areas that will contain most of the sporting venues. The multi-functional Olympic Green will house the National Stadium and the National Swimming Centre as well as entertainment and tourist facilities. The Wukesong area will contain the Wukesong Indoor Stadium in addition to cultural, sports and business facilities for the public.

In addition to sporting venues, other construction projects are planned:

- Olympic Village (80-hectare eco-park/residential area with apartments, clinics, training grounds, canteens, and entertainment centres);
- China International Exhibition Centre (media centre and indoor venues);
- Beijing World Trade Centre;
- Zhongguancun Technology Zone;
- Beijing Central Business District;
- Other key projects in the fields of science, education, culture and health.

Sketch of the 20,000-seat Wukesong Indoor Stadium for basketball competitions at the Beijing 2008 Olympics.

"3G" Beijing

Growth in China's telecommunications industry — a star performer — is expected to skyrocket by an annual 20% over the next five years. To meet world standards, Beijing will be integrating 3G broadband capabilities into all Olympic sites using a combination of fibre optic and wireless technologies.

Broadband communications services will be capable of handling 500,000 calls securely, and will enable Games coverage to be transmitted throughout the world. E-commerce services will be widely available, with "smart" cards used for ticket purchases and in identity badges. Global positioning devices linked to satellite communications systems will be used on all Olympic and public transport routes.

Tourist games

Given that Beijing's tourist and Olympic-related industries are lagging, there will be plenty of opportunity for foreign investment. There are many ways for foreign firms to get in the game, including joint-venture travel agencies, hotel investments, and the development of tourist resources and Olympic souvenirs and games.

Foreign-invested travel agencies are now permitted to form joint ventures with their Chinese counterparts. As the Chinese tourism industry expands, however, such agencies may be able to gain controlling shares or establish wholly-owned enterprises.

Indeed, Beijing now welcomes foreign participation in the construction of some 408 hotels over the next six years.

Financial incentives

Beijing's municipal government is offering a number of incentives to encourage foreign investment in the Olympics:

- A compensation fund to bridge the gap between a contract price and the government-set price.
- Financial assistance for large projects that will have little return on investment in the short-term.
- Land-use rights on land allocated for development and construction of high-return projects.
- Fixed-term franchise rights to permit investors operating infrastructure projects to run them as franchises.

With such incentives in place, let the bidding games begin!

For part one of this report, see the May 15 issue of CanadExport.

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