

## B.C. companies turn Chinese filth to gold

### Mountains of trash are good business for waste companies

**Wency Leung**

Vancouver Sun

*Monday, September 04, 2006*

B.C. companies are spinning fortunes from China's filth. Local solid waste management firms are exporting green solutions to clean up after the industrializing giant, as its rapidly expanding economy depletes its environment.

Richmond's Richway Environmental Technologies Inc. designs and builds facilities in China that convert solid waste into electricity

The private company has been working in China since the mid-1990s, and now has four facilities in operation there and another under construction.

While China's rapid economic growth has turned it into one of the world's biggest polluters, it's also allowing authorities to spend money to fix its environmental problems, said Moses Chen, Richway's general manager.

"Twenty to 30 years ago, when the economy was not strong enough, they maybe [could] not pay for environmental projects," Chen said. "The China economy gets stronger and stronger, and they are able to do more projects for environmental protection and waste management."

That combination of rising demand and government spending capability has opened the doors for B.C. companies like Richway.

Chen noted that in recent years, Beijing has also introduced stricter environmental controls. Tighter regulations at the national level have put pressure on the municipal and county governments, Richway's biggest client base, to adopt clean, energy-efficient technologies.

"The local governments are [now] more cooperative," Chen said.

Richway's facilities take in municipal trash or agricultural waste, such as corn stalks and biomass, and breaks it down using pyrolysis, a method that uses a controlled amount of air to partially burn solid waste. The facilities' emission-controlled systems remove pollutants and harmful particles that are produced in the process.

Meanwhile, the resulting energy is used to generate electricity for local power grids.



CREDIT: China Photos, Getty Images

CLEANING UP IN CHINA: A worker gathers trash on the moat around the Old City Wall in Xian, Shaanxi Province, China. One of the problems of China's booming economy is what to do with mountains of waste, and Richmond's Richway Environmental Technologies Inc., which designs and builds facilities in China that convert solid waste into electricity, is part of the pollution solution.

Richway's flagship project in the city of Shenzhen, Guangdong province, takes in 300 tonnes of municipal waste a day, and converts it to six megawatts of electricity.

By North American standards, six megawatts would be enough to provide power for approximately 4,800 homes.

The power generation component of Richway's projects is a big selling point for its municipal government clients, Chen said.

With its massive population and energy needs, China is in short supply of electricity, and compared with B.C., which relies mainly on hydro-generated power, electricity is expensive.

In addition, government restrictions on the burning of agricultural waste to curb air pollution, have contributed to the demand for Richway's technology.

One of the greatest challenges of working in the communist country, however, is that residents aren't used to paying for municipal services, Chen said, noting it's difficult to collect tipping fees from garbage collection.

Since the 1990s, local governments have begun making citizens pay user fees, Chen said. But he added: "This is in progress and it will take time to apply to all cities."

Even as authorities focus more on environmental issues, pollution in China continues to worsen.

The State Environmental Protection Administration said last week that two major pollution indicators showed further environmental deterioration, according to China's Xinhua news agency. The amount of chemical oxygen demand, which indicates the amount of organic matter in waste water and sulfur dioxide discharges, had increased during the first half of this year, it said.

Meanwhile, the report noted that 40 per cent of its cities suffer from moderate to heavy air pollution.

Targeting the country's pollution woes, Industry Canada is leading an environmental trade mission to China in October to promote Canada's air pollution control, solid waste and waste water management firms.

This will be Industry Canada's fourth environmental trade mission to the country.

This year's mission will branch out to China's second-tier cities beyond Beijing, Shanghai and Guangzhou, which, while smaller, still have populations numbering in the millions.

Like Richway, several B.C. companies already have a toehold on the market.

North Vancouver's International Bio Recovery Corp. sold the master rights to its organic waste management technology in China to Shanghai-based CFO Holdings Corp. in 2002.

CFO began operating its first plant using IBR technology in Baotou, in Inner Mongolia, last year.

Instead of composting, IBR technology uses bacteria to digest organic waste from food, agricultural production, livestock farming and municipal sewage sludge into high-quality, environmentally-friendly fertilizer.

While market expansion in China will depend on CFO, IBR expects its technology could be used to develop additional plants throughout the country.

"The potential for the technology there is tremendous," said Henry Bow, manager of corporate relations for IBR.

Bow said the majority of the company's sales have gone to Asia, including Indonesia and Malaysia.

IBR has a plant in North Vancouver, but since its technology digests only organic material, it's not suitable for cities with established disposal systems that don't separate their waste.

"We're not necessarily targeting Asia over any other market," Bow said. "We're really trying to follow the greatest opportunities."

In a June report, the B.C. government-appointed Asia Pacific Trade Council noted China presented huge market potential for the province's environmental companies.

But, it said, with the economies of B.C. and Alberta growing at a quick pace, local green firms may be more inclined to stay at home.

"The robust North American market provides a disincentive to B.C. companies to look to China and other Asian markets," the report said. "The anticipated strength of local markets between now and the 2010 Olympics is likely to absorb much or all of the attention of many firms."

Kris Obrigewitsch, head of marketing and investment at Victoria-based International Composting Corporation, agreed that domestic opportunities is keeping his company.

ICC has a facility in Nanaimo that processes organic waste collected from residents and businesses into compost material. But Obrigewitsch said the company's growth in B.C. won't deter it from looking to China.

Already, it receives numerous Chinese delegates interested in its technology and Obrigewitsch said ICC could begin marketing to China in the next two years.

"The B.C. economy has rebounded strongly. That being said, there's only that much expansion you can do in Canada," he said.