China: Solid Waste Treatment Industry

Overview of Emerging Tier II Markets

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The JLJ Group

Solutions for China Entry & Growth

INTRODUCTION

The objective of this report is to provide an overview of the Chinese market for solid waste treatment, with focus on seven key emerging markets beyond already established cities such as Shanghai, Beijing, and Guangzhou.

EXECUTIVE SUMMARY

Market overview. China's is the world's largest producer of Municipal Solid Waste (MSW), producing over 155 million tons in 2005, and still growing at 8-10% annually. The country produced 1.3 billion tons of industrial waste, which also experiences similar growth rates. The predominant method of treatment is landfill, which accounts for about 80% of total treated MSW, followed by incineration and compost. However, most landfills in China are not sanitary, and less than 10% meet international standards. Cities also face problems with upgrading landfills. Thus, the key direction for many cities is incineration, especially for cities which are more economically developed and have more capital to build incineration facilities, e.g. those on the East coast.

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Regulatory environment. China has stepped up its efforts to improve the regulatory framework for modern waste management. A series of laws were passed in the last few years that introduced more detailed regulations on various types of waste e.g. hazardous, electronic, and medical waste. However, local enforcement remains weak in many regions. The 11th Five Year Plan emphasizes the concepts of the 3Rs (Reduce, Reuse, Recycle); most cities have followed this direction issued by the central government and have planned projects to increasing recycling and reutilization of waste.

Best prospects. Best prospects closely follow government directions and its areas of planned investment in solid waste facilities, for example whether the government intends to encourage incineration vs. landfill.In general, most needed products are those with advanced technology that domestic companies are not able to provide, which include: 1) sampling instruments; 2) treatment equipment, especially for hazardous, medical, and electronic waste; 3) sanitary landfill and incineration equipment; and 4) waste-to-energy technologies.

Key emerging markets. Seven emerging markets are analyzed in this report - Dalian and Harbin in North China; Hangzhou, Ningbo, and Nanjing in East China; Shenzhen in South China; and Chongqing in West China. A key trend common to all seven cities is a strong focus on developing hazardous and medical waste facilities, which represents good opportunities for foreign exporters. All the cities are also moving towards greater use of incineration, although this trend is stronger in Hangzhou, Ningbo, Dalian and Shenzhen. Sanitary landfill continues to be important in Harbin, Nanjing, and Chongqing. In Hangzhou and Ningbo, there is also a strong focus on sludge treatment and recycling technologies. Very limited or no Chinese companies are strong in this area, thus there are opportunities for foreign exporters. Another area which requires foreign technology is landfill gas-to-energy technology, for which some projects have already started in Nanjing and Shenzhen.

Market access. Foreign companies face several barriers to direct exports. Local governments generally prefer foreign direct investment (FDI) in waste projects (over pure imports of equipment) as it brings technology transfer and capital investment. There is also strong competition from European and Japanese companies, which have been more aggressive in market entry, and in terms of financing support (often from their governments). However, there are still market opportunities for direct exports, either by using local distributors or establishing a presence (i.e. Representative Office).