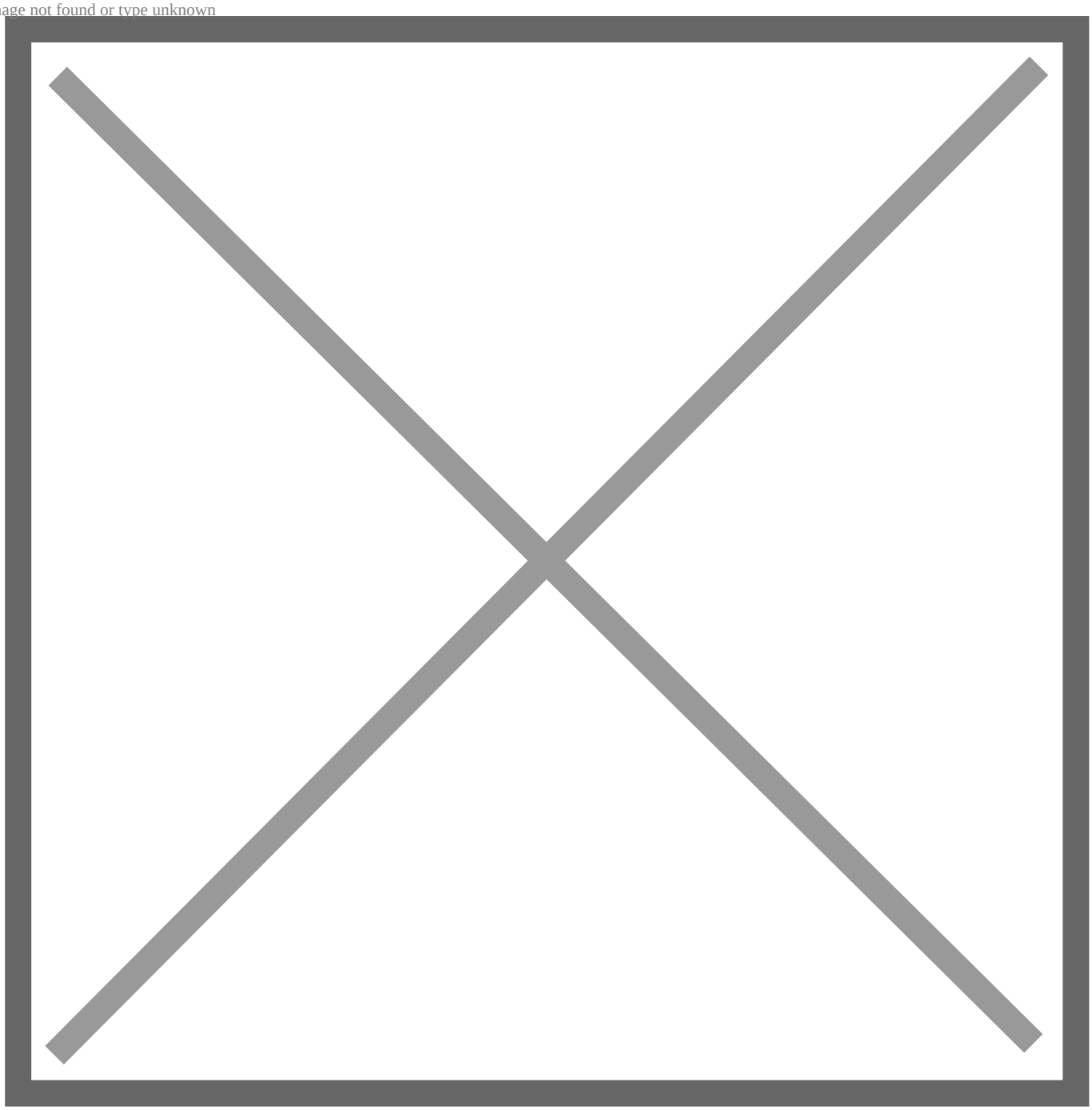
China's Green Energy Market: Business Opportunities for EU SMEs

TAGS Green Development

ARTICLES | 6 January 2016

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China’s ongoing transition of its energy structure towards a greener, safer and more efficient model means that investment continues to flow into this sector, from both Chinese and foreign enterprises. The EU SME Centre say the companies that can offer high-tech solutions and know-how combined with enhanced performance and competitive pricing will be the ones to prevail.

China’s Energy Development Strategy Action Plan (2014–2020)

China uses more energy and emits more greenhouse gases than any other country in the world today. The country’s huge industrial sector, together with rapid urbanisation and development, has created a hunger for energy that is unsurpassed anywhere else. Faced with the task of balancing the need for perpetual economic growth with ever-dwindling reserves of fossil fuels, the Chinese Government is pushing hard for a gradual transition towards producing cleaner energy and more efficient energy consumption.

In November 2015, the State Council released the Energy Development Strategy Action Plan (2014-2020), which aims to promote more efficient, self-sufficient, green and innovative energy production and consumption in China.

The targets include a cap on annual primary energy consumption set at 4.8 billion tonnes of the standard coal equivalent until 2020, with a need to limit the annual growth rate of primary energy consumption to 3.5 per cent for the next six years.

The share of non-fossil fuels in the total primary energy mix will rise to 15 per cent by 2020, from 9.8 per cent in 2013, according to the plan. Meanwhile, the share of natural gas will be raised to above 10 per cent and that of coal will be reduced to less than 62 per cent.

Business opportunities for European SMEs

Progress on the ground has been impressive so far, but much more remains to be done if China wants to meet its ambitious targets.

For European SMEs, the main market opportunities will be found in areas where large SOEs or multinationals have not yet invested and where they can leverage their know-how and technologies such as water, renewable energy, waste management and industrial pollution control. Below is a list of business opportunities in these areas:

Water Sector

Water saving technologies

• Special sealing products, dynamic and static seals

Water extraction

• Well-drilling and high pressure pumps

Water distribution

• Network leakage detection and repair technologies

• High efficiency pumps

• Advanced water measurement technologies

• Integrated monitoring systems

Water treatment

• Biological denitrification and phosphorus removal technologies

• Membrane manufacturing technologies

• Sludge treatment technologies

• Disposal equipment and automatic control equipment

• Immobilised microbe technologies

Renewable Energy

Wind sector

• Wind to heat technologies

• Inverter/converter technology, generators and gearboxes

• Cooling and filtration systems

• Pitch control systems

Solar sector

• Effective solutions for the management of distributed generation networks

• High quality solar roof top solutions

• Concentrated solar power

• Thin film technology

Bio-energy sector

• Steam turbines for biomass combustion

• Auxiliary equipment such as generators, condenser systems, monitoring and control systems

• Process control technologies such as totally integrated automation, totally integrated power solutions, modular distributed control system (DCS), supervisory control and data acquisition (SCADA) and manufacturing execution system (MES) solutions

• Solutions to ensure effective plant management and operations

Waste Management

Municipal solid waste management and collection

• Equipment for sorting and washing mineral substances, and magnetic pulleys

• Combustion process technologies where the waste is not sorted, or refuse-derived fuel (RDF) combustion

Boiler and gasifiers

• Co-firing pulverised coal boilers and fluidised bed boilers

• Circulating fluidised bed boilers and vertical boilers

• Biomass boiler systems, biomass boiler parts and services

Gasification processes

• Anaerobic digestion

• Syngas solution

• Pyrolysis

Solid waste disposal equipment manufacturing

• Landfill leakage-proof geo-membrane

• Hazardous waste treatment equipment

• Landfill gas power equipment and large-scale livestock farm waste

Industrial pollution control

The Chinese industrial market is looking for technologies that directly minimise emissions or indirectly reduce them. Such sectors include iron and steel manufacturing, foundry operations, metals finishing, cement manufacturing, paper and pulp, glass manufacturing, food processing, tanning and chemical industries. These industries are looking for methods to control pollution

better, such as:

• Treatment techniques and disposal methods for hazardous waste;

• Direct steelmaking processes that reduce pollution;

• Modified glass making furnace;

• Non-chlorine pulp bleaching sequences to control toxic substances as dioxin;

• Environmental equipment – oil skimmers;

• Soil investigation and remediation technologies;

• Volatile organic compounds (VOC) control technologies;

• Catalytic materials and catalytic combustion; and

• Industrial organic exhaust gas purification.

Market challenges

The vast size of the Chinese green tech market does not necessarily translate directly into opportunities for European SMEs, though. Missing or insufficient regulations and investment incentives, the importance of strong relationships with local governments and SOEs, and increasing competition from Chinese companies are among the main factors inhibiting more extensive involvement by non-Chinese companies. Other factors such as intellectual property rights and technology localisation also strongly come into play.

Advice for SMEs

Analyse your business within the Chinese environment

• Understand if the local market is ready for your solution

• Be flexible to local market needs

Prepare the necessary documentation

• Brochures and technology descriptions need to be adapted to and customised for the Chinese market

Select the right people for your business

• Learn how to build an effective local team and work with Chinese business partners

Develop an effective budget control

• Be open to cooperate with other European SMEs

Develop detailed market and customer research

• Define with who and how to develop your business

Prepare a specific negotiation strategy

• Become familiar with how Chinese companies negotiate and adapt your strategies accordingly

To learn more about the recent trends and business opportunities in China’s green energy market, check out our webinar Energy & the Environment in China: Development, Trends & Opportunities for SMEs and sector report The Green Tech Market in China.