Short Term Policy Brief 71

Chinese Investments into the EU Energy Sector

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Author: Hinrich Voss

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1 Executive Summary

- Chinese firms invest little in Europe’s energy sector. China’s energy-related outbound investments into Europe are underrepresented compared with its global average.

- Energy related inward investments from Russia, the USA and other extra EU-27 investors dominate over those from China, according to European data. This and the previous point indicate that the potential for investment from China is commensurately greater.

- One reason for the low value of Chinese investments in the EU energy sector is the relative lack of endowments in energy related resources across the European economy. This means that Chinese firms can only engage in equity deals within the EU-27 to acquire access to oil and gas resources outside Europe, thus accounting for the low value of investments within the EU itself.

- While Chinese renewable energy companies have to date invested little in Europe, these firms are most likely to drive Chinese investments in Europe’s energy sector in the future. This is because of the EU’s renewable energy policy focus (cf. ‘Europe 20-20-20’ to generate 20 per cent of energy from renewable energy sources by 2020). It is also the case that the private (i.e., non state-owned) ownership of Chinese firms in the renewable sector will act as a force to reduce animosity towards inward investment from China. Private firms are globally competitive, and therefore promise to bring product and process innovation to the EU without invoking perceptions of Chinese government control and influence.

- EU-China cooperation in the field of renewable energy should be further pursued during the sixth Energy Dialogue to support the transition of the Chinese and European economy to a low-carbon one. This should include the attraction of direct investment and capacity building in the EU.

- However, uncertainties in how European energy policies will develop during the current economic situation act as a deterrent for Chinese investments. Predictable and stable implementation of policy goals will enable Chinese investors to assess and develop business cases for investing in production facilities in Europe.

- Reinstalling confidence in the growth prospects of the EU economies is crucial, particularly the reduction of uncertainties around the prospects of the Eurozone. Sovereign debt problems and related governmental fiscal retrenchment negatively affect the attractiveness of the EU for Chinese investments in the energy sector, given that energy investments seek stability in revenue streams from investments.

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2 Chinese Investment into the European energy sector

China’s foreign direct investments (FDI) abroad have grown at a sustained high rate over recent years, and understandably have attracted much attention from advanced economy governments. This paper provides the context surrounding Chinese energy-related investments in the European Union (EU) and assesses the benefits and risks to the EU from these investments.

2.1 Statistical overview of Chinese FDI in the European energy sector

China’s global outward foreign direct investment has risen over the last decade from an outward FDI stock value of €45.6 billion (in dollar terms US$57 billion) in 2005 to €306 billion (US$425 billion) in 2011. Over the same time period the share of investments that can be attributed to energy related activities remained stable at about 16 per cent (NBS, MOFCOM and SAFE, 2012). Aggregate Chinese direct investments across the European Union of 27 member states (EU-27) have increased faster than its global investments. The value of Chinese FDI stock in the EU-27 increased more than 20-fold, from €0.6 billion (US$0.8 billion) in 2005 to €14 billion (US$20 billion) at the end of 2011 (NBS, MOFCOM, and SAFE, 2012). Unfortunately, a breakdown by industry and host country is not available from Chinese sources. If a comparable share of energy related activities were to take place in Europe, we should witness Chinese investments of the order of €2 billion (US$3 billion).

However, according to data from Eurostat (2013) and the Heritage Foundation (Heritage, 2013), these figures have not borne out. By 2010, the latest year for which Eurostat reports a breakdown by industry, the stock of China’s energy-related investments in Europe accounted for 2 per cent, or €0.1 billion, of all Chinese investments in Europe. Heritage (2013) reports that energy-related deals were worth €12 billion (US$17 billion) between 2008 and 2012 in the EU-27, or six per cent of China’s global energy deals. That is to say that, from a Chinese perspective, investments in the EU energy sector are underrepresented in comparison to the global total. This is of little surprise given the emphasis that is placed by the Chinese government in developing and supporting national oil companies (NOCs) and through them, access to oil and gas supplies. The minor importance given to

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2 US$ terms are converted to € terms using the period average official exchange rate (World Bank, 2012).
3 This figure is calculated from the broad sectors “mining” and “production and supply of electricity, gas, and water”. Data for more narrowly defined sectors are not available from Chinese sources.
4 This figure is calculated from the sectors “extraction of crude petroleum and natural gas; mining support service activities”, “manufacture of coke and refined petroleum products”, and “electricity, gas, steam and air conditioning supply”. Data for more narrowly defined sectors are not available from European sources.
5 Country-level data are not available for all EU-27.
energy-related investments is mirrored on the European side. Chinese investments accounted for 0.1 per cent of all inbound (i.e., from outside the EU-27) energy-related investments by 2010. The largest beneficiary of this modest investment was Denmark.

It follows from these macro statistics that energy related acquisitions in Europe should be few. Between 2005 and the end of 2012, Chinese firms completed 33 energy-related equity acquisitions in Europe (Thomson Reuters, 2013). Of these deals, the majority (22 out of 33) of the energy related equity acquisitions across the EU-27 were found in the oil and gas industry (see Figure 1). Sinopec and PetroChina have been most active with six and five deals, respectively. Other companies such as Sinochem, Oriental Energy, and China National Overseas Oil Corporation have been active to only a minor degree. Although deals in the oil and gas industry dominate, not all of these deals involve assets located within the EU-27. Seventy per cent of these acquisitions include the transfer of oil and gas exploration rights from European firms to Chinese ones for assets outside the EU. Examples of such deals are the acquisition of Tullow Oil’s (UK) exploration rights within parts of Uganda by a group of investors linked to CNOOC in 2010, and PetroChina’s acquisition of a 40 per cent stake in an oil and gas exploration and production block in Qatar – acquired from GDF Suez SA, France.

While deals are executed directly from China, they may also be executed by overseas subsidiaries of Chinese companies. An example of this is the acquisition of coal mining and exploration company Caledon Resources PLC, UK, by Guangdong Rising (Australia) Pty Ltd, a subsidiary of a Guangdong based company.

In addition to the acquisitions in Europe, Hanemann and Rosen (2012) reported a total of 49 greenfield investments over the period 2000 to 2011; 45 of these were in renewable energies.
2.2 The main Chinese energy-related firms active in Europe

The main Chinese actors in the oil and gas, wind, solar, electricity grid and coal sectors are introduced in this section.

Oil and Gas

The key participants in the oil and gas sector are the NOCs PetroChina, Sinopec and CNOOC. PetroChina, China’s largest NOC, has been involved in five successful equity deals worth in excess of €4 billion (US$5 billion) in the EU-27 since 2005. Most of its activities have been focused on acquiring...
non EU-owned upstream assets in countries such as Canada, Syria (Syria Shell Petroleum Dvlp BV), Kazakhstan (PetroKazakhstan), and Qatar (GDF Suez SA-Qatar Oil Block 4), from Europe-based firms. PetroChina also purchased a 50 per cent interest in refineries in Scotland and France from UK-based INEOS, in 2011.

Sinopec has executed six deals in Europe since 2005 worth in excess of €13 billion (US$17 billion). It has been acquiring entire companies, plus considerable equity shares, in European oil and gas exploration and production companies, or their subsidiaries. Most notably, it acquired a 49 per cent interest in Talisman’s operation in the British North Sea in 2012. The single largest deal was the acquisition of Repsol YPF Brasil SA from Repsol (Spain) for €5 billion (US$7 billion) in 2010. Sinopec has an office in London dedicated to their African and trading operations.

CNOOC’s deals involve energy assets in countries outside the EU-27. In 2012 it acquired jointly with Total (France) explorations rights from Tullow Oil (UK) in Uganda. It coordinates its Africa operations through its office in London, UK, and in February 2013, CNOOC was given permission from the Canadian government to acquire Nexen for €11 billion (US$15 billion).

**Wind**

Goldwind, Sinovel, and Ming Yang are among the world’s ten largest wind energy producers (Clark, 2013) and share a strategy to step up their presence in the European market over time. Goldwind and Mingyang each have credit lines of more than €3.6 billion (US$5 billion) from the China Development Bank for their international expansion (Hook and Clark, 2013). Privately-owned Goldwind has been the majority owner of Vensys Germany since 2008. Vensys produces wind turbines for the European and international markets in Germany. Vensys and Goldwind GmbH are currently financing a Chair in Wind Energy, with a €2.5 million endowment, at the University of Applied Sciences, Saarbrücken, Germany.

Sinovel, a wind turbine manufacturer, first announced in 2011 a deal (publicised again in mid-2012) with Greece’s Public Power Corporation (PPC) for the development of onshore and offshore wind farms of 200-300MW each (Clark, 2011). Also in 2011, Sinovel struck its largest overseas contract in Europe, worth €1.5 billion, with a 1GW project in Ireland (Clark, 2011). In February 2012, two 3MW advanced wind turbines were installed in Sweden as demonstration projects. In Romania, Sinovel has an agreement to deliver 1,200MW in wind turbine capacity for the Project Dobrogea, and is said to be considering opening a production in partnership with local company Faur. As part of this

China’s largest power equipment producer, Dongfang Electric Corporation, has capabilities in wind turbine manufacturing and one office in Italy. Ming Yang maintains an R&D office in Denmark.

**Solar**
Noteworthy solar energy companies are Yingli Solar, Suntech and Trina. Yingli Solar, a private manufacturer of solar panel modules, announced the establishment of its regional headquarters in Switzerland in October 2012 and has sales offices across Europe. The subsidiary Yingli Europe is primarily engaged in the sale and marketing of photovoltaic (PV) products and relevant accessories in Europe. Yingli Italia and Yingli Spain have the same responsibilities for their respective domestic markets while Yingli Greece caters for Greece, Cyprus, the Balkans and the Middle East. Europe accounted for 90, 83 and 62 per cent of Yingli’s global revenues over the years 2009 to 2011.

Suntech has its European headquarters, Suntech Europe Ltd., in Switzerland and has a representative office in Munich. Its European activities include the supply of panels to the Pozohondo Solar Farm (5.1MW), Spain, and the Stuttgart Trade Fair (3.8MW). To date, no manufacturing base has been established in Europe.

Trina Solar has an established sales network in Europe, with offices in Derby, Madrid, Milan, Munich, and Prague. It supplied 23MW of solar modules to Italian solar plant operator Enerqos Spa in 2010. It has a contract to supply panels worth a total of 20MW to four projects in Germany, and the UK, under a cooperation agreement signed with PV system supplier Abakus Solar, and a further 61MW capacity in an unrelated German project (Trina, 2013).

**Electricity Grid**
In February 2012, State Grid, the largest electricity grid operator in China, spent €387 million to buy a 25 per cent stake in Portugal’s national power grid company Redes Energéticas Nacionais (REN), becoming its largest stakeholder. REN is active in Europe as well as in Africa and South America. State Grid also unsuccessfully attempted to acquire a stake in Spanish Red Electrica. Through its Portuguese operation, State Grid has become involved in the development of the Irish offshore grid.

**Coal**
The activities of China’s state-owned coal companies in Europe are mainly restricted to trading. Chinacoal is exporting through its subsidiary China Coal Overseas Development Co., Ltd. to Eastern
Europe, among other markets. Datong Coal Mine Group Co. set up a trading subsidiary with a capital of €3 million (RMB30 million) in 2010 with a branch office in Europe. The most significant activity in this sector is China Huadian Engineering’s signing of a memorandum of understanding to build a 600MW coal-fired power plant valued at €1 billion in Romania.

2.3 The drivers of Chinese investments in the European energy sector

The majority of Chinese energy deals in Europe take place within the oil and gas industry sector. For these deals there is a clear focus on the acquisition of access to natural resources that will serve China’s economic growth and are generally carried out by state-owned enterprises, i.e. NOCs. Through these investments NOCs will at times also gain access to advanced technologies. Investments in the renewable energy sectors and the energy grid form part of market development and are focused on the exploitation of the firms’ competitiveness. In all relevant deals, Chinese firms have secured a foothold in Europe. The development of REN and Vensys illustrates this approach.

Goldwind started collaborating with Vensys in 2003, developing a megawatt-class wind turbine and agreeing to produce and distribute Vensys turbines under license in China. Goldwind and Vensys are both actively developing new technologies. According to Espacenet (2013), which collects patent applications globally, Vensys has applied for seven patents and Goldwind for 64. An interesting observation is that Vensys applied last time in 2009. In 2008, Goldwind acquired the majority share of Vensys. Through this capital injection, Vensys was able to move from a technology developer who licences its technologies to a developer and manufacturer. Through Vensys, Goldwind bought subsidiary companies that produce converters and variable propeller systems for Vensys, expanding its access to key technologies. To date, Vensys turbines with a capacity of more than 13,000 MW have been installed globally (as of Dec 2012) – of which 11,657 MW are installed in China by Goldwind. In 2012, Wu Gang, CEO at Goldwind, stated that the European market will be served and further developed through its German affiliate Vensys. Goldwind recorded a global turnover of €1.4 billion (RMB11 billion) in 2012.

The State Grid Corporation of China (SGCC), ranked as the seventh largest corporation in the world with a turnover of €192 billion (US$260 billion) in 2011 in Fortune Global 500, became a co-owner of Redes Energéticas Nacionais when it privatised in 2012. As an outcome of this relationship, the China Development Bank agreed to a €800 million loan to REN and REN signed an agreement in February 2013 with the China Electric Power Research Institute (CEPRI; representing State Grid International Development (SGID), a wholly owned subsidiary of SGCC), to establish a R&D centre in Portugal;
SGCC’s first overseas R&D centre. According to Espacenet (2013), SGCC is the stronger technology partner in this relationship: CEPRI has applied for 123 patents globally and State Grid for more than 2,000; none is registered for REN. SGCC has expertise, inter alia, in ultra-high voltage (or high-voltage, direct current, HVDC) power lines which can be used in the development of smart grids and the transmission of renewable energy across the grid. SGID and REN also signed an agreement to set up a consulting firm in Brazil to provide consulting services regarding grid technology, engineering design, equipment selection, and electricity regulation in 2013. This follows from the partial acquisition agreement in 2012 in which both sides agreed to jointly explore the Brazilian market.

2.4 Risk and benefits attached to Chinese investments

China’s energy-related acquisitions of European firms tend to involve assets that reside outside of the EU-27. Sinopec, for example, acquired oil and gas exploration rights from European firms in Brazil, Kazakhstan, and Russia. PetroChina has secured rights in Canada and Qatar. These deals have no immediate impact on the European economy as they neither develop nor destroy existing firm linkages. However, disposing these assets, which have potential strategic value for the energy security of the EU, could have long-term consequences.

CNOOC’s acquisition of Nexen has secured it direct access to oil and gas assets in the British North Sea, specifically to the Buzzard, Ettrick, Blackbird, and Scott/Telford fields which deliver about 112,000 barrels-of-oil-equivalent per day (boe/d) across them (Nexen, 2013a, 2013b). Nexen’s investment in the Golden Eagle development in the North Sea will contribute about 26,000 boe/d once in full operation (Nexen, 2013a). Nexen is also active in shale gas extraction: in Poland it has a joint venture to explore 10 concessions with an estimated 185 trillion cubic feet of recoverable resource (Nexen, 2013b). It is at this stage unclear how CNOOC plans to continue with the European developments started by Nexen.

2.5 The European policy framework towards Chinese investments in the energy sector

A cornerstone of European energy policy is its resolve to generate 20 per cent of its energy from renewable sources and reduce greenhouse gas emissions by 20 per cent by 2020. In order to achieve these goals, the current European Energy Commissioner, Günther Oettinger, stated that by 2020 investments of about €1 trillion will be required in the European energy sector. In other sectors, European wind and solar initiatives will be supported with investments of €22 billion. Further support for renewable energy sources has traditionally come from the feed in tariffs (FITs). The European policy consensus on these energy policies can provide an attractive business environment.
for foreign investors as they deliver certainty of return on investment. A recent study by Ernst & Young (2012) reported that France, Germany, Italy and the UK exhibit significant underdeveloped renewable energy sectors, despite the existing extensive investment record. In principle, Europe should be a promising and predictable market for Chinese investors. However, this has been undermined by: the policy adjustments to the FiTs in a number of European countries in reaction to the current financial and economic crisis within Europe; the slow policy progress in individual Member States; and erratic policy implementation in other markets (Ernst & Young, 2012). Uncertainties in how policy goals may be implemented and enforced will distract Chinese investors and push them to markets that may have less ambitious goals but are more predictable and less competitive.

3 Policy recommendations for the European Union

• The predictable and stable implementation of EU policy goals regarding energy, will enable Chinese investors to assess the European market more accurately and, on this basis, develop stronger business cases for investing in production facilities within Europe.

• The sixth Energy Dialogue should be used as an opportunity to advance EU-China cooperation in the field of renewable energies, including joint development projects. It should promote the attraction of direct investment to the EU, as well as capacity building, in the renewable energies sector.

• The renewable energies agenda has a double benefit. Because investment in renewables tends to add to capacity, Chinese investment should help Europe reach its targets here. This is in contrast with non-renewable energies, where inward investment is more likely to involve acquisition of existing capacity and is thus of lesser benefit.

• Reinstalling confidence in the growth prospects of the EU economies is crucial, particularly, the reduction of uncertainties around the prospects of the Eurozone. Sovereign debt problems and related governmental fiscal retrenchment negatively affect the attractiveness of the EU for Chinese investments in the energy sector as energy investments seek – and are particularly sensitive to – stability in revenue streams from investments.
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