



EU-China CDM Facilitation Project

2ND EUROPEAN POLICY STUDY TOUR

31 July 2009

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ABBREVIATIONS

CDM	Clean Development Mechanism
COP	Conference of Parties
DWS	Dynamic Watercooled Stepgrate
EC	European Commission
EPB	Environmental Protection Bureau (of Provinces in China)
EU	European Union
GHG	Green House Gases
JI	Joint Implementation
MEP	Ministry of Environmental Protection of China
MOFA	Ministry of Foreign Affairs of China
MOST	Ministry of Science and Technology of China
NDRC	National Development and Reform Commission of China
PRCEE	Policy Research Centre for Environment and Economy of MEP

INTRODUCTION

The EU-China CDM Facilitation Project aims to strengthen the Clean Development Mechanism (CDM) as a central pillar within China's path to sustainable development. The project lasts three years from February 2007 to January 2010. The EU-China CDM Facilitation Project is being implemented by Chinese and European partners and associates with grants from the European Commission and is the largest European-funded project addressing CDM-related activities with the total financial contribution of EUR 2.8 million. Through a series of activities including policy research, high-level policy tours, capacity building and training programmes, the project will focus on China's policy and regulatory regime for CDM development and will provide policy recommendations to CDM policy-makers in Europe and China.

The high-level policy tours for Chinese policy-makers to Europe is one of the most important activities under the EU-China CDM Facilitation Project, designed to strengthen policy research, cooperation and information exchange between the EU and China. From 24th to 31st of May 2009 the second high-level policy delegation, led by Mr. XIA Guang, the Director-General of Policy Research Center for Environment and Economy of the Ministry of Environmental Protection (PRCEE of MEP), visited Sweden and Belgium. The second high-level policy tour had a particular focus on technology transfer, clean technology and energy efficiency. The delegation consisted of Chinese officials from Ministry of Environmental Protection (MEP) and National Development and Reform Commission (NDRC) and from local environmental protection bureaus including Xinjiang Uygur EPB, Shanxi EPB, Ningxia Hui Autonomous Region EPB, Hebei EPB and International Cooperation Center of Heilongjiang EPB. During the visit to Belgium the Counselor of Science and Technology (S&T) at the Embassy of People's Republic of China in Brussels participated in the delegation's activities. IVL Swedish Environmental Research Institute, team lead of the EU-China CDM Facilitation Project, organised the policy study tour.

In Sweden, the delegation visited the Swedish Ministry of the Environment, Swedish Energy Agency, Royal Danish Embassy in Sweden, IVL Swedish Environmental Research Institute and the companies Fortum, Borlänge Energi and SSAB. In Belgium, the delegation visited the Federal Public Service Health, Food Chain Safety and Environment, the Flandern Trade and Invest and the companies VYNCKE and Volvo and the organisations VITO, 3E and Climate Proof.

The delegation discussed a great variety of topics with the host organisations but would particularly like to highlight three important impressions:

- Firstly, climate change is one of the key topics where EU and China have a common interest. The Chinese policy delegation concluded from the visits that the EU and the EU member states are taking ever more active actions in order to pursue a successful outcome of COP15 to be held in Copenhagen later this year. The fact that the new US Administration is more positive to take part in the GHG emission reduction progress motivates the EU to try to stimulate other major GHG emitters such as China and India to also increase their efforts.
- Secondly, the Chinese policy delegation paid particular attention to the energy policies in Europe. European countries are considered advanced in the areas of energy efficiency, alternative energy development and waste energy recovery. Several interesting practices were observed e.g. utilising seawater for district cooling in residential buildings (Fortum company) and power/heat generation using waste or biomass (Borlänge Energi and Vyncke) .
- Finally, Sweden and Belgium have been actively engaged in promoting the development of carbon markets (e.g. trade with emission allowances) and have developed relevant policies in order to encourage industries and the public to reduce GHG emissions.

The delegation exchanged information on the latest policy developments and local actions in China. Director General XIA Guang introduced a series of measures taken by China to cope with the financial crisis and climate change and to implement energy conservation and emission reduction. The delegation also expressed China's concern on technology transfer issues and the local representatives among the delegation introduced their respective positions on clean technologies. The delegation expressed their willingness to enhance further communication and cooperation on CDM and environmental protection. The study tour was considered a great success by all delegation members.

1. THE 2ND POLICY STUDY TOUR - MAJOR IMPRESSIONS

The policy study tour has enabled the delegation to reach a better understanding of European climate change policies and experiences of energy conservation, energy efficiency and environmental protection.

1.1 THE DELEGATION'S VIEW ON THE EU'S AND THE EU MEMBER STATES' CLIMATE CHANGE POLICIES

The information exchange with the EU member states, especially Sweden, who will hold the next Presidency of the EU, and Denmark, who will be the host of COP15, enabled the Chinese policy delegation to make observations of European climate change policies and views on climate change actions. The delegation observed that the EU actively takes the initiative to emission reduction commitments, is fully committed to obtain achievements at the Copenhagen conference and encourages large emission countries, such as the United States and China, to take further actions.

From the delegations point of view the following aspects of the EU's and the EU Member States' climate change policies are of particular interest:

- *Establishing concrete emission reduction targets.* The EU proposes that developed countries should continue to use compulsory and quantified emission reduction targets. The EU member states pointed out the fact that the EU have set the target to cut GHG emissions 20 % below the 1990 level by 2020 and, if other large emission countries commit to further actions, the EU will raise the target to 30% below the 1990 level by 2020. During the visits the EU member states also pointed out that, apart from the least developed countries, the developing countries should also take proper national actions to control the GHG emission growth.
- *Enhanced communication and coordination with the US.* The EU has high expectations on the new US Administration and is optimistic that the United States is likely to take actions and make concrete commitments to reduce its GHG emissions. Due to this fact the EU will enhance the communication and coordination with the United States in this year's high level international meetings in order to stimulate the United States to take substantial actions.
- *Technology transfer related issues.* From the delegation's point of view the EU and the EU Member States are slow to process the core issues associated with technology transfer and have not proposed any practical or operational suggestions or solutions in order to meet the

developing countries' requests of technology, finance and capacity building. The Chinese policy delegation suggests that the EU and the EU member states should make substantial commitments or compromises on technology transfer issues at the Copenhagen conference.

- *CDM project cooperation.* The EU Member States are active in CDM project cooperation. Sweden has fulfilled its target set under Kyoto Protocol and thus has no real demand for CER's but is still active in CDM project cooperation. Belgium has developed a specific CDM cooperation strategy for China, i.e. China-Belgium CDM Partnership Initiative, which hopefully will further strengthen CDM project cooperation between Belgium and China.

1.2 CLEAN TECHNOLOGY IN SWEDEN AND BELGIUM – TWO INTERESTING EXAMPLES

One of the purposes of this study tour was to demonstrate and provide information on advanced European technologies and experiences on energy conservation and environmental protection. The delegation visited several relevant companies in Sweden and Belgium in order to gain expertise and to exchange information in these areas. The delegation would like to highlight their impression of Borlänge Energi Company and VYNCKE.

1.2.1 Swedish Borlänge Energi Company

Borlänge City is located in Dalarna Province, in the middle of Sweden, with a population of around 48,000. The delegation visited Borlänge Energi Company, which is Borlänge City's municipal energy company. The staff in Borlänge Energi Company introduced the "waste to energy" concept and practices to the delegation. The production strategies of the company includes 100% of electricity and 95% of heat supply from renewable sources; no chemical in drinking water; over 90% waste recycling rate ; over 95% waste water treatment rate; and 95% of compost and sludge recycling rate to nature. This company has close cooperation with iron and steel company SSAB and the two companies have a so called "heat exchange" i.e. Borlänge Energi Company, with the help of advanced technology and accurate calculations, generate heat and electricity by using the waste heat from the iron and steel company. Also in the field of district heating Borlänge Energi "exchanges" with other companies, e.g. the company uses waste heat from Stora Enso, waste material from a local paper plant, municipal waste etc. as source material for production of district heating. Borlänge Energi is active internationally and the company has set up environmental technology centres in Chile and China.

1.2.2 Belgian VYNCKE Company

VYNCKE Company, established in 1912 is a multinational clean energy company. The company has factories or offices in Germany, Czech Republic, China, Thailand, Malaysia, Singapore, Canada, and Brazil, with international sales network. VYNCKE focuses on incineration technology, energy saving technology, resource recycling and integrated utilisation technology, to generate green and clean energy from waste and biomass. The DWS technology (Dynamic Water-cooled Stepgrate) incineration technology from VYNCKE Company can deal with all kinds of solid fuel (wood residues, waste from agriculture and food industry such as crop residues), regardless of the shape or the moisture content of the waste. The system meets the strictest emission standard. The experience of the company shows that: 1) when biomass is used for power generation the utilisation rate is 22-23% and the return on investment period is usually 6-7 years; when using biomass for heat supply the utilisation rate is above 85% and the return on investment period is cirka 2 years. VYNCKE's experiences thus suggest it is more reasonable to use biomass for heating than power generation 2) power plants, especially bigger power plants, using crop residues as source material sometimes find it difficult to find sufficient amounts of source materials due to logistic problems or competition from other power plants. VYNCKE therefore suggest that more small scale biomass power plants and/or heat/electricity cogeneration plants, rather than bigger power plants, should be established in order to increase efficiency. VYNCKE has already established factories or offices in several provinces/cities in China, e.g. the VYNCKE (Suzhou) Clean Energy S&T Company which provides steam boiler and technical support for heat and power generation plants.

2. FEEDBACK AND SUGGESTIONS FROM THE DELEGATION

The Chinese policy delegation has concluded that the EU and the EU Member States are the leaders in the international negotiations on climate change and environmental issues. The EU's climate policies are in many aspects guiding for the international climate negotiations. The Chinese delegation is well aware of the necessity to take immediate actions and show great interest in the EU's and EU Member States climate change policies. The delegation has greatly benefited from taking part of the European experiences of environmental protection and climate change mitigation policies and has, based on the experiences from the 2nd policy study tour, proposed the following:

The Chinese government should:

- Enhance the communication with the EU and the EU Member States. Relevant Chinese national departments should organize and participate in more international and multilateral/bilateral meetings, immediately increase their understanding of the EU's and the EU Member States climate change policies, enhance communication with the EU and the EU Member States, promote mutual understanding and promote successful climate change negotiation results.
- Fully utilize national research institutes. The study tour has highlighted the importance of national research institutes and their capability to support governments' climate change policies. The delegation suggests that China's national research institutes, especially the ones focused on climate change, should be strengthened and supported, e.g. by increased international cooperation and increased cooperation with national administrative departments. The national research institutes should support and develop the Chinese governments' climate change policies.
- Enhance the research on the "post-2012 CDM". The current CDM system has been criticised for not being sufficiently efficient and the EU, inter alia, has suggested a reform of the CDM. From a Chinese perspective the current CDM system is relatively efficient, but due to the fact that the EU is suggesting a reform of the CDM the delegation suggests China should enhance the research on how the CDM could be reformed. The research should, inter alia, focus CDM reforms that are beneficial to China's domestic industries and facilitate the cooperation process.
- Learn from Swedish and Belgian experiences when it comes to promoting clean technology and demonstrating best practice and benchmarks in low carbon economy. The delegation observed

that Borlänge City in Sweden has established advanced recycling, energy efficiency and integrated energy utilisation systems. The city is an interesting case study for low carbon economy development. The delegation suggested using Borlänge City as benchmark when planning and developing low carbon economy demonstration cities in China.

- Encourage the governments of developed countries to provide subsidies to companies in order to facilitate technology transfer. The delegation suggest that in order facilitate technology transfer companies in developed countries should receive subsidies from national or regional governments in developed countries. The subsidies would allow advanced companies in developed countries to offer favorable conditions when transferring technology to developing countries.
- Encourage that CDM project cooperation to a larger extent enable technology transfer. The China-Belgium CDM Partnership Initiative could, for example, also function as mechanisms to transfer technology, e.g. VYNCKE's incineration technology and management experience in biomass utilisation, which is essential for development of renewable energy in China.
- Regional/provincial governments in China should be encouraged to adopt new technologies and know-how.
- Project owners/companies in China should be encouraged to adopt new technologies and know-how.

APPENDIX I: KEY HOSTING ORGANISATIONS AND THE DISCUSSION TOPICS

Country	Organisation	Roles and Responsibilities	Topics
SWEDEN	Ministry of the Environment	Responsible for Swedish environmental and climate change policy	<ul style="list-style-type: none"> • The upcoming Swedish EU Presidency • COP15 • The possible reforms of the CDM • EU's and Sweden's climate change policies
	Swedish Energy Agency	National authority for energy policy issues. Responsible for Swedish CDM/JI programme	<ul style="list-style-type: none"> • Swedish CDM/JI programme • EU's and Sweden's views on technology transfer • CDM and capacity building
	Royal Danish Embassy in Sweden	Denmark's diplomatic mission to Sweden	<ul style="list-style-type: none"> • COP15 • Future direction of CDM
	IVL Swedish environmental research institute	Sweden's leading environmental research institute	<ul style="list-style-type: none"> • IVL's climate change and technology transfer related activities in China • IVL's climate change related research
	FORTUM	Power company	<ul style="list-style-type: none"> • District cooling and energy efficiency
	Borlänge Energi	Borlänge Energi is Borlänge City's municipal energy supplier	<ul style="list-style-type: none"> • Integrated energy efficiency solutions of Borlänge Energi and SSAB;

	SSAB	Swedish steel company	<ul style="list-style-type: none"> • SSAB's environmental policy and cooperation with Borlänge Energi
Belgium	Federal Public Service Health , Food Chain Safety and Environment	Federal Ministry responsible for Belgian environmental and climate change policy	<ul style="list-style-type: none"> • Belgium's climate change policy • Belgian Federal Government Carbon Credit Purchase Plan • Belgian policy on energy efficiency • Belgian offshore wind farm development policy
	Flemish Trade and Invest	Regional trade and investment promotion agency	<ul style="list-style-type: none"> • Regional technology transfer initiatives
	Vito Research Institute	Technological research institute in the field of environment, energy, materials and remote sensing	<ul style="list-style-type: none"> • Energy efficiency policy in Belgium
	3E Company	Global provider of chemical, regulatory and compliance information services	<ul style="list-style-type: none"> • 3E company's experience in energy saving and CO₂ emission reduction
	Futureproofed	Consultancy working on low carbon solutions	<ul style="list-style-type: none"> • Climate change: threats and opportunities

**EU Policy Study Tour Programme
- Sweden (24-28 May 2009)**

Sunday, 24 May:

Delegation departs from Beijing and arrives in Stockholm (ETA 17:10)

Monday, 25 May:

Morning session

- *Visit the Swedish Energy Agency (09:30 – 12:00)*

Topic: The CDM and technology transfer (see enclosed programme)

Discussions with: Mr. Mattias Eriksson (Deputy Head of Section), Mr. Ola Hansén, Mr Michael Rantil and Mrs. Angela Kallhauge

Address: Rosenlundsgatan 9, Stockholm

Afternoon session

- *Visit at Fortum, district cooling production plant Ropsten 3 (13:30 – 16:00)*

Topic: Case study - energy efficiency at Fortum

Discussion with: Mr. Lars Farneman (Head of production plant) and Mr. Anders Hill

Address: Lidingövägen 115, Stockholm

Tuesday, 26 May:

Morning session and afternoon session

- *Visit at Borlänge Energi and SSAB (10:00 – 16:30)*

Topic: Case study – energy efficiency at Borlänge Energi (power plant) and SSAB (steel industry)

Discussions with: Mr. Ronny Arnberg (Head of international projects at Borlänge Energi)

Address: Nygårdsvägen 9, Borlänge

Wednesday, 27 May:

Morning session

- *Visit at Ministry of the Environment (09:00 – 10:30)*

Topic: The Swedish EU Presidency and the future of CDM

Discussions with: Mr. Conny Hägg, Mr. Olle Björk, Ms. Emi Hijino and Mr. Patrik Brodd.

Address: Tegelbacken 2, Stockholm

- *Visit at IVL Swedish Environmental Research Institute (11:00 – 13:30)*

Topic: Case study - energy efficiency

Discussions with: Mr. Östen Ekengren (Vice President) and Mr. Jonas Röttorp

Address: Valhallavägen 81, Stockholm

Afternoon session

- *Visit Royal Danish Embassy (14:00 –16:00)*

Topic: COP15 and the future of CDM

Discussions with: H.E. Tom Risdahl Jensen (Ambassador), Mr. Bent Graff, Mr. Thomas Rizk and Mr. Kristian Borg Houlberg Thomsen

Address: Jakobs Torg 1, Stockholm

Thursday, 28 May:

Delegation departs from Stockholm and arrives in Brussel (ETD 07:10 and ETA 09:25)

**EU Policy Study Tour Programme
- Belgium (28-31 May 2009)**

Thursday, 28 May:

Morning session

- *Visit at the Federal Public Service Health, Food Chain Safety, and Environment, DG Environment, Climate Change Section (11:00 – 12:30)*

Topic: Energy efficiency policies and measures in Belgium

Discussions with: Mr. Peter Wittoeck, Mr. Etienne Hannon, and Mr. Erwin Cornelis

Address: Federal Public Service Health, Food Chain Safety and Environment, Place Victor Hortaplein 40, Brussels

Afternoon session

- *Visit at the Federal Public Service Health, Food Chain Safety, and Environment, DG Environment, Climate Change Section (14:00 – 17:00)*

Topic: The Belgium Carbon Credit purchase programme, energy efficiency, and renewable energy in Belgium

Discussions with: Ms. Sarah Kuen, Ms. Tania Van Loon, and Mr. Steven Vandendorre, and Mr. Serge de Gheldere

Address: Federal Public Service Health, Food Chain Safety and Environment, Place Victor Hortaplein 40, Brussels

Friday, 29 May:

Morning session and afternoon session

- *Visit at Vincke, Clean Energy Technology company and Vincke installation plants (10:00-16:00)*

Topic: Case study – biomass combustion technology at Vincke

Discussions with: Mr Jef Mestdagh

Address: Gentsesteenweg 224, Harelbeke

Saturday, 30 May:

Morning session

- *De-briefing meeting (10:00-13:00)*

Topic: De-briefing Climate and environment policy study tour

Discussions with: Delegation participants

Address: Delegation's hotel in Brussels

Sunday, 31 May:

Delegation departs from Brussels and arrives in Beijing (ETD 14:50)
