



E3G

# **EU-China Interdependencies on Climate, Energy and Growth**

Nick Mabey, E3G

February 2012



- EU-China interdependencies on Climate and Energy
- Impact of China's 12<sup>th</sup> 5 Year Plan
- EU and China Challenges and Cooperation

# Climate Vulnerability



E3G



# Common Interests



E3G

- EU (90%) and China (75%) will be major oil importers in 2030; high dependency on the Middle East, Russia and Central Asian suppliers.
- EU and China are vulnerable to climate change **but** China is more at risk domestically and Europe regionally
- Europe is the major investor and technology supplier to China; particularly in energy, transport and infrastructure
- European demographics require a growing China to fund pensions; Chinese demographics require it to move up the value chain to maintain GDP growth
- EU and China both need a rules based trading and security system



- EU-China interdependencies on Climate and Energy
- Impact of China's 12<sup>th</sup> 5 Year Plan
- EU and China Challenges and Cooperation

# Energy intensity target takes centre stage



E3G

- Estimated that a 16% reduction in energy intensity will result in an 18% reduction in carbon intensity. CO2 emissions still grow.
- Expansion of successful Top 1,000 Enterprises programme to 10,000 Top Enterprises programme
- Chinese emission reductions will be between 0.5-2.5GT CO2 in 2020; EU reductions are 0.5-1.1GT in 2020 depending on 20 or 30% target

# EU and China are the two main motors of the global low carbon economy



- Installed capacity of non-fossil fuel to grow to 474 GW, 33% of the total capacity (322GW RES in EU)
- Investment of 2-3 trillion yuan (€230- €340 billion) in renewables over the next 10 years (EU €360- €450 billion)
- China's energy saving and environmental protection sector is expected to be worth 4.5 trillion yuan (€520 billion) by 2015
- Investment in grids (often using EU technology):
  - €57 billion in UHV Transmission (€23-26 bn in EU by 2015)
  - €460 billion on smart grids (€100 bn needed in EU by 2020)

- EU-China interdependencies on Climate and Energy
- Impact of China's 12<sup>th</sup> 5 Year Plan
- EU and China Challenges and Cooperation

# Opportunities for Europe



E3G

- Global low carbon markets should expand from to €3 to €4 trillion by 2015
- China's investment based on a global low carbon future is a clear sign of the success of Europe's leadership on climate change agenda
- China taking serious actions on climate change is beneficial to Europe and the world – curbing of global emissions (although not enough for the 2C target) and delivering cheaper low carbon technologies
- Slowing of Chinese energy demand growth could relieve pressure on global fossil fuel prices, unless domestic coal replaced by imports
- As a leader in advanced technologies, Europe is well positioned to take advantage of the increasing demand for green technology, and a more open market for technologies and finance in China

# Challenges for EU-China relationship in the low carbon economy



- Europe will face growing competition in green sectors, but limits to China's innovation and high-tech capacity in the short term.
- China may become a market leader in parts of the low carbon economy by dominating bulk clean technology market and setting technology standards; electric vehicles are a key area.
- Public support in the EU for maintaining clean energy subsidies may fall when the majority of equipment comes from China
- Aggressive expansion of M&A by Chinese companies could further erode the shares of European companies in the global clean technology market, and is raising protectionist responses

# Some Existing Tensions



E3G

- Inclusion of aviation in the EU Emission Trading System
- Export impacts of Chinese clean energy subsidies
- Domestic preferences in Chinese procurement rules
- IPR and technology sharing issues

# Carbon Leakage is a Distraction



E3G

- In 2008 high energy merchandise made up 8% of Chinese exports to the EU and 20% of EU exports to China.
- China represents 18% of EU steel imports; China produces 50% of global cement, has many of the worlds most energy efficient plants and only exports 1% of this.
- Increased shipping costs in 2008 alone added implicit €50-150 per tonne carbon tariff to Chinese steel and cement exports
- China's growth strategy is not based on high energy commodity exports; real competition for the EU in these industries is from Russia, Gulf States and Turkey

**EU priority should be maximising benefits from low carbon trade and investment with China not border adjustment**

# EU-China Summit 2012



E3G

- Establishment of the China-EU Partnership on Urbanisation
- Convening of a China-EU High Level Energy Meeting in June 2012 covering energy security and energy science and technology.
- Enhancement of cooperation in the automotive sector focused on reduction of energy consumption and emissions, notably via the development of electro-mobility.
- Further deepen cooperation in energy technology and continue to expand the support for energy-related R&D for SMEs
- Further enhance dialogue on climate change related domestic policies and share experiences on climate change legislation.
- Practical cooperation on issues with common concerns: carbon capture and storage and the Emission Trading System.



E3G

---

# Thank You!

More information at [www.E3G.org](http://www.E3G.org)