

CHINA BRIEFING: ISSUE 2

The aim of The °Climate Group's China Briefing, published every other month, is to update you on efforts to tackle climate change in China. Each issue highlights key opportunities for working with China to achieve low carbon growth and tackle global climate change.

This second issue looks at:

- Latest moves by government to tackle climate change;
- How technology can help Chinese industry reduce its greenhouse gas (GHG) emissions;
- China's latest energy and climate change targets;
- Update on The Climate Group's work in China.

“CHINA WILL ENHANCE ITS CAPACITY TO RESPOND TO CLIMATE CHANGE AND MAKE NEW CONTRIBUTIONS TO PROTECTING THE GLOBAL CLIMATE.” (PRESIDENT HU JINTAO, 17TH CPC NATIONAL CONGRESS)

NATIONAL STEPS ON CLIMATE CHANGE

Since the publication in June 2007 of China's National Climate Change Programme, a raft of government organisations have published targets, initiatives and their own programmes aimed at building a resource-efficient and environmentally friendly society. Some of these are as follows:

- In September 2007, the National Development and Reform Commission (NDRC) launched the national public campaign on energy conservation and pollution control. This contains nine action plans focused on, for example, community, enterprises, government and media engagement. During September there were many campaigns, such as Public Transport Week and World No-Car Day, as part of this;
- Also in September the Ministry of Foreign Affairs set up a taskforce led by Foreign Minister Yang Jiechi to address climate change in relation to international affairs;
- On September 26 the Ministry of Science and Technology launched the 2007 National Key Basic Research Programme (NKBRP, or commonly known as '973 Programme'). Starting with RMB1.9 billion funding for this year, it approved 73 programmes of research, a quarter of which are on energy saving, pollution control and climate change;

- The China CDM (Clean Development Mechanism) Fund, officially launched in 2007 by the Ministry of Finance, is now fully operational. With revenues from CDM projects the fund is expected to expand to about US\$150 million by the end of this year and to US\$1.8 billion between 2006–2012.

“DEVELOPED COUNTRIES SHOULD FULFIL THEIR COMMITMENT AND TAKE THE LEAD IN EMISSION REDUCTION AFTER 2010.”
YANG JIECHI, MINISTER OF FOREIGN AFFAIRS

HOW TECHNOLOGIES CAN HELP INDUSTRY

Developing GHG-cutting and energy-saving technologies and bringing them into use is seen as one of China’s main practicable routes to combating climate change. Energy intensive and heavily polluting industries dominate the economy. This has led to unprecedented social and environmental problems, as China’s GHG emissions have increased.

From 2000 to 2005, during China’s super-fast industrialisation, secondary industry (mining and quarrying, manufacturing, construction, and production and supply of electricity, water and gas) has grown faster than the overall economy, making China’s GDP increasingly energy intensive. China uses more energy in proportion to its per capita Gross Domestic Product (GDP) than many developed countries and the world average, and even more than mid- and low-income countries whose per capita GDP equals that of China.

The energy intensity of end use products and technologies in China is similarly high (see chart below). Energy exploitation, supply, transformation and dispatch for industrial processes and other end use technologies are all much less efficient than current international standards of advanced technology. In energy exploitation (discovery, harvest and production), China is 30 per cent less energy efficient; in intermediate processes (for example, using coal to generate electricity) it is 5 per cent less efficient, and in end use (for example, fuel efficiency of vehicles) it is 10 per cent less efficient.

In the energy generation sector, which is responsible for about 40 per cent of national carbon emissions, China’s energy efficiency equals that of the United States and the United Kingdom in the 1970s, 60–70gsce/kWh higher than international advanced technology.

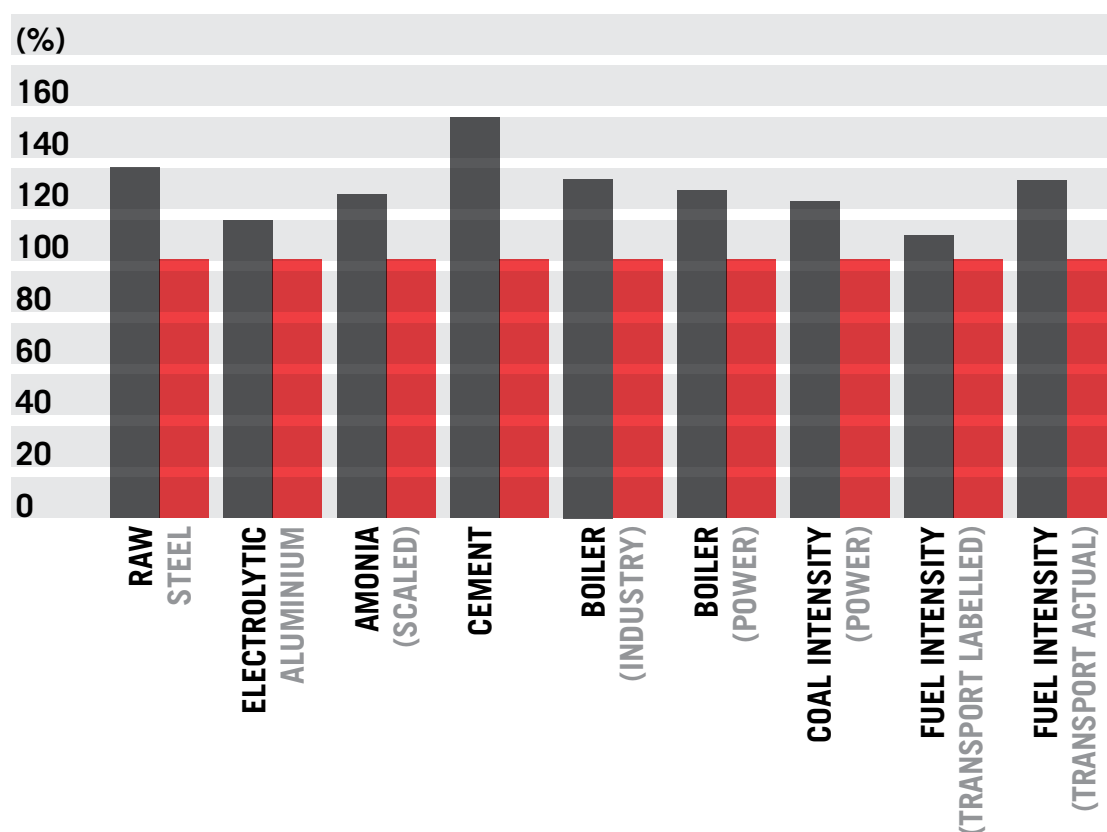
All this means, however, that just a few percentage points of improvement in energy-efficiency could lead to a significant fall in the GHG emissions that China produces.

China will reduce the energy intensity of its power sector in several ways. It will phase out outdated technology and will also phase out the large numbers of small scale power plants and replace them with larger entities

with greater potential for efficiency. Technologies such as super critical and ultra-super critical thermal power units, integral gasification combined circulation (IGCC), and so on, that improve energy efficiency, will be a priority.

China is researching, developing, deploying, transferring and importing the above technologies. Currently, however, China does not have intellectual property rights for some advanced technologies. It is therefore focused on rectifying this as well as strengthening the development of related manufacturing industries.

ENERGY-INTENSITY OF ENERGY-USING PRODUCTS AND EQUIPMENT:



CHINA VS. ADVANCED TECHNOLOGY ABROAD IN 2000

RENEWABLE ENERGY GOALS AND TARGETS

New targets and policies which were recently set clearly show how China is stepping up action on energy conservation and climate friendly development. The renewable energy development plan includes targets to:

- Increase the share of renewable energy (including hydro, biomass, wind, solar and geothermal power) in the energy mix from the current 7.5 per cent (2005) to 10 per cent (2010) and 15 per cent (2020);

- Develop renewable energy with the aim of increasing energy security in the countryside and protecting the environment;
- Use organic waste for energy to promote circular economic development (where materials and knowledge are used to their fullest extent, and recycled wherever possible).

The plan has made preliminary estimates of how much needs to be invested and has carried out both an environmental and social impact assessment and a cost/benefit analysis, taking into account the environmental and social benefits associated with renewables deployment.

The message from the plan is very clear. Even though further detailed analysis is still needed, China's focus on renewable energy development will undoubtedly increase in order to realize the potential co-benefits of greater energy security and improved environmental protection. Meanwhile, it highlights the booming opportunities associated with the existing renewable energy market.

THE °CLIMATE GROUP

The °Climate Group's Greater China Programme is taking shape after intensive consultation with key stakeholders in China. Our focuses are:

- Catalysing clean-tech leadership - promote investment in innovation;
- Inspiring best practices – accelerate corporate leadership;
- Strengthening the front lines – motivate leadership in cities;
- Shaping effective policies – from China's regional economic centres;
- Empowering China's consumers – through 'Together';
- Breaking the deadlock – through effective policy dialogues.

Over the next two years these are some of the projects that we will be running:

- Regional Programme: starting in the Greater Pearl River Delta Region, this will explore regional models that work towards a low carbon economy;
- City Programme: assessing a city's climate change risks and building up public-private partnerships to tackle these, starting in Shanghai, Hong Kong, Beijing, and Guangzhou;

- Business Leadership Programme: working with business leaders from multi-national companies, leading state-owned enterprises, Chinese private sector companies, clean-tech companies, and investment groups to give the climate friendly practices a higher profile;
- ‘Together’: encouraging corporations to market climate friendly products and services
- Promoting the development of a robust carbon market.

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