



China - Renewable Energy Policies

Reducing Reliance on Coal

Coal was 70% of energy consumption in 2010 and was falling as a percentage.

China set a target of closing 50 gigawatts (GW) of small and inefficient coal power capacity by 2010. By 30 July 2009, China had already achieved that target, shutting 54GW in 7,467 small plants. China planned to shut another 31GW of inefficient coal plants by 2011.

Addition of coal plants has been significantly reduced since 2006¹.

China issued its first legally binding energy efficiency target in 2006, centrally assigning efficiency targets to regional government using subsidies and incentives for compliance.²

China International Climate Change Commitments.³

By 2020: -

- Reduce CO₂ emissions per unit of GDP by 40-40% of 2005 level;
- Use non-fossil fuels for 15% of its energy;
- Increase forest cover by 40million ha and forest stock volume by 1.3bnm³ from 2005 level;
- Achieved through State central programmes, mandatory at state and provincial levels;

¹ Switchboard Natural Resources Defence NRD Blog 24.9.2009

² Centre for American Progress; China Arrives at Durban Greener than ever; Melanie Hart, 2011

³ NRDF; From Copenhagen to Climate Action; Tracking Commitments report 2010.



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- Improving building, vehicle and appliance efficiencies and education;
- Amended Renewable Energy Law, requiring grid companies to meet renewable targets;
- Renewable Energy Development Fund for incentives and R&D via surcharges on electricity users;
- National Capacity Targets for wind, solar, biomass and other technologies;
- Preferential grid access for wind, solar, biomass producers;
- Subsidies for renewable energy production – solar subsidies;
- \$30bn for Chinese Green Stimulus programme;
- Converting cropland to forest.

National Development Plan

Chinese energy restructuring will play a big role in mitigating the country's carbon footprint. The 12th 5-Year Plan includes the first binding carbon-intensity target for decreasing energy consumed per unit of GDP by 16% and carbon output per unit of GDP by 17%. Central Government will monitor energy consumption in Regions – to deliver political will.

Renewable Energy Research

On 24th February 2012 the Chinese Government announced the establishment of the China National Renewable Energy Research Centre (CNREC), to realise sustainable growth, to improve photovoltaic power, wind power, bio fuel and other renewable resources.

This is part of the Sino-Danish collaboration in a renewable energy development programme. China invested c.\$48bn in renewable energy sources in 2010.⁴

Installed renewable capacity was 103GW in 2010.

In 2011, installed energy capacity of 'clean energy' – hydro, nuclear, wind, solar and biomass – accounted for 27.5% of the nations total installed generation capacity.

⁴ Xinhua News Agency; Electro IQ bulletin 24.2.2012. China establishes Renewable Energy Centre.

Wind Energy

China has 4 wind turbine manufacturers in the global top 10.

Installed wind capacity doubled each year 2006 – 2009.

The Chinese market more than doubled its capacity from 12 GW in 2008 to 25.8 GW in 2009 and added 16.5 MW in 2010 to reach 42.2 GW at the end of 2010.

China was the world's largest market in 2010, slipping past the USA to become the world's leading wind power country.

In 2011 China added 17.8GW to bring the cumulative capacity to 62GW. China added approximately 43% of added world wind energy supply in 2011.⁵

The growing wind power market means China has: -

- Encouraged domestic production of wind turbines and components;
- Developed the wind manufacturing industry stretching over the whole supply chain;
- Made it the world's largest producer of wind energy equipment;
- Resulted in components made in China now satisfying domestic demand, and also meeting international needs.

The wind industry is responding to new Government requirements to reach 200GW by 2020, set out in the 12th 5-Year Plan. The planning, development and construction for the “Wind Base” programme, which aims to build 138 GW of wind capacity in eight Chinese provinces, is well underway.

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⁵ Global Wind Energy Council Report 2011, Feb 2012