Side-event

Chinese Energy Sector’s Role in Low Carbon Transition

Paul SIMONS
Deputy Executive Director
International Energy Agency

Marrakech – China Pavillon, 15 November 2016
The IEA works around the world to support an accelerated clean energy transition that is enabled by real-world **SOLUTIONS** supported by **ANALYSIS** and built on **DATA**.
China as an IEA Association country & beyond

- Sept 2015: “opening doors” to emerging economies
- Nov 2015: China became IEA’s Association country
  - Chinese Energy Minister attended the IEA Ministerial for the first time
  - IEA Ministers endorsed steps to modernise the IEA
  - Association countries: China, Indonesia and Thailand
- March 2016: 20th anniversary of IEA-China relations
- More engagements and analysis related to China
  - Three-year work programme
  - More personnel exchanges (NEA high-official and secondees), workshops (energy data), visits and meetings
China’s Energy Transition

- Coal has fueled China’s massive economic growth especially since the beginning of this century.
- But more attention has been shifted to clean energy within the context of climate change and air pollution.
- China is now moving to a less energy-intensive model for growth.
- Renewables and energy efficiency are now playing a key role in China.
A new chapter in China’s growth story

Along with energy efficiency, structural shifts in China’s economy favouring expansion of services, mean less energy is required to generate economic growth.
As China faces overcapacity across heavy industry, coal consumption in China declined for two consecutive years in 2014 and 2015, featuring structural changes.
Coal is one of the main industries facing severe overcapacity, followed by steel, cement and flat glass.

China’s coal production capacity vs. coal consumption in 2015

- **Production capacity:** 5.7 Gt
- **2015 Coal consumption:** 3.965 Gt

- **Recently-built or expanded (including 800Mt of illegal projects):** 1496 Mt
- **Production halts:** 308 Mt
- **Existing production capacity:** 3900 Mt

Source: People’s network
New policies underpin a more bullish forecast for renewables

Renewable electricity capacity growth (GW) in MTRMR’s main case

China remains key growth market for renewable capacity, while the United States surpasses the EU for the first time
China is an energy efficiency heavyweight

Primary energy savings from efficiency gains since 2000 and renewable energy supply in China

Dramatic progress on energy efficiency saved 350 million tonnes of coal in 2014. Energy savings are as large as China’s renewable energy supply.
Energy efficiency is saving CO$_2$ emissions

CO$_2$ emissions savings from efficiency improvements since 2000 in IEA countries and China

In 2015, efficiency gains in IEA and China reduced their combined emissions by 15%.
Concluding remarks

- Investment flows signal move towards cleaner energy

- An integrated policy approach is needed, covering market design, CO$_2$ pricing & system integration, including storage & demand response

- Policy makers need to heighten their commitments, providing clarity and certainty to investors

- IEA contributes to the energy transition by its work on renewables, system integration & global clean-energy technology collaboration