



CHINESE NUCLEAR MARKET & WHY IS NUCLEAR ENERGY NECESSARY

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CHINA: 1ST NUCLEAR NEW BUILD MARKET

- **Almost 50% of nuclear power plants under construction are in China**
- **Current development status (April 2015):**
 - 26 units in operation (24.6 GW) + 24 units under construction (26 GW)
 - By 2014, 75% (36 out of 48 reactors) of the Chinese fleet in operation and under construction is coming from French technology
 - 2015: Re-launch of the nuclear construction program (suspended after Fukushima)
- **Strong support from the Chinese government to develop nuclear with the highest safety standards**
 - 2020 ambitious objectives: 58 GW in operation + 30 GW under construction
 - Progressive localization of technology
 - Large manufacturing capacity : scale effects and competitiveness
 - ➔ **Push to “go abroad” :**
 - To mitigate the overcapacity of the national heavy equipment industry**
 - To allow China to become a nuclear power matching its economic status**

YET there is a contrast with the share of nuclear in the Chinese energy mix

1.5% of total installed capacity

NUCLEAR POWER TO BALANCE CHINA ENERGY MIX

- **TODAY, China relies mostly on coal** (63% of total installed capacity)
 - ➔ **Rise of environmental concerns** ➔ **Need to diversify its energy mix**
- **Other available resources:**
 - Renewables -> rapid growth BUT cannot meet the base load energy demand
 - Shale gas -> a promising market BUT limited visibility
 - Hydro -> will reach 67% of China potential hydro resources in 2020 (source: CEC)
 - **Nuclear is a sustainable energy source, which reduces carbon emission**

**NUCLEAR can help China combat climate change
and
reduce green house gas emissions**

NUCLEAR POWER TO MEET GROWING ENERGY DEMAND

- **As largest producer and consumer of energy, China has huge energy needs**

Electricity consumption projections (source: CEC)

2014	2020	2030	2050
5550 TWh	7700 TWh	10300 TWh	~ 12500 TWh

- **China's lack of oil and gas resources**
 - Heavy dependence on foreign imports
- **Apart from coal, the only resources able to provide RELIABLE base load power are: NUCLEAR and HYDRO**

NUCLEAR can help China :

- **increase its energy security**
- **achieve a higher energy independence**

Thank you