China’s Role in the Energy Sector

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Methodology: Key issues & facts, not statistical tables

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1. China huge energy consumer and producer

- Gas: ‘As long as 15 million households will be interconnected with gas networks in China every year, gas prices in Europe will go up; the current energy crisis will last, with short periods of respite, until after 2030’ *Petropouleas, ELPEDISON*
- Coal: World's largest miner and consumer of coal. 90 pct of coal supply comes from domestic producers, recently central planners have demanded that 153 mines *expand* production.
- RES: Renewable energy power capacity 1million MW *22 Nov*

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2. ET: No 1 producer of hydrogen…, of renewables [RES] equipment...

- Hydrogen: mostly produced from fossil fuels, with coal accounting for 62pc of feedstock -- compared with 18pc globally.
  But: only 4pc of China's hydrogen uses green energy to convert water into O2 and H2 by electrolysis
- RES equipment: No1 supplier of photovoltaics, wind turbines, batteries; increasing role in concentrated solar [CSP]
- Nuclear eg the deployment of thorium molten salt reactors: developing these reactors with the assistance of the DoE and the US’s nation's labs and universities.

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3. ET: …and of the upstream raw materials for RES

- Rare earths: already No1, merges companies into megafirm to ensure global dominance in production, controls entire value chains
- Lithium ion supply chain: Beijing set to account for >60% of market by 2026; announced in Oct '21 an upcoming tender for the exploration and production of 400,000 tonnes of lithium
- Cobalt: Chinese companies own half of the largest cobalt mines in the Democratic Republic of Congo
- Now possesses ~ 90 pc of global capacity to *process* raw lithium, ~ 70 pc of cobalt and 40 pc of nickel.
- Has almost all the manganese- and graphite-*refining* capacity.
- State-backed companies have secured a reliable supply of the raw metals and elements behind E.V. batteries

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4. ET: No1 producer of GHG emissions

- Introduced *national* emissions trading scheme (ETS) in July ‘21, a quota system regulating emissions among *power companies*. Will later include steel, chemicals, petrochemicals, building materials, non-ferrous metals, paper and aviation.
- *Local* schemes also in operation; In September, the NDRC released a so-called “dual-control” plan, ordering regional govts to cap and ration electricity consumption and control emissions, mainly on sectors producing yellow phosphorus, aluminium, industrial silicon and building materials.
- ‘We will strive to peak carbon emissions before 2030 and achieve carbon neutrality before 2060.’
- ‘China’s equivalent to the EU Taxonomy excludes gas’
- *But* country continues to construct/finance coal plants abroad, incl. in the Balkans

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5. *But*: ‘partly ET’ country heavily affected by energy crisis

- Factory gate inflation soars to 26-year high on energy crunch, fastest pace in 26 years in Oct ’21 & increased 13.5 pc from last year
- Power shortages and record commodity prices
- Soaring coal prices; Return of coal coupons
- Government limits on power prices for industrial & retail users that have exacerbated electricity shortages in the past few months
- Carmakers face profit squeeze amid rising material costs, dwindling demand
- Petrol price surge exacerbates energy crisis

- *In addition, pollution*: biggest steelmaking hub Tangshan ordered steel output curbs from Oct 28 ‘21 to tackle worsening air quality in the city

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6. A vast array of geopolitical issues

- China’s new Silk Road or debt-trap diplomacy? Asia and Africa
- Covid-19: Disaster Diplomacy - One billion jabs to Africa
- US-China trade wars, continuing under Biden, incl. his hailing EU-US steel deal as chance to curb ‘dirty’ Chinese imports...
- EU-China wars…but now The European Commission will announce on Wednesday Dec 1 '21 its strategy to compete with China in global infrastructure projects with a project called the "Global Gateway“ by providing up to €300 billion in public and private resources by 2027 to finance EU infrastructure projects abroad, such as motorways in Asia and broadband internet in Africa
- Germany’s new Foreign Minister Annalena Baerbock might be more critical of CN, RU
- **Of 10 risk scenarios that could impact global growth and inflation in 2022, 4 are directly related to China** *Economist Intelligence Unit (EIU) Risk Outlook for 2022*
- **Global climate fight hinges on China’s $6.5tn green investments challenge** *16 Nov* Country must unleash $6.5tn in green investments and radically reorganise its financial system if the planet is to win the fight in opposition to climate change.

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7. Tentative summary and conclusions

- China in a dominant position [not only due to its immense population], keeps rising in power and influence,
- …Including in the sector of energy -- demand, supply, technology and finance
- Also has a mighty commercial shipping fleet, closing in on the Greeks
- Energy transition: ambivalent
- **Quo vadis China?**
  ‘China is to become a strong, global power by 2049, a rule-maker rather than a rule-taker, capable of playing a more forceful role in determining global norms and practices. For [President] Xi, the west is in decline while the east is rising, and this provides China with the opportunity to more effectively promote its national interests.’ *Harvard Prof Tony Saich, Nov 16*
  *But: ‘’*Overconfidence and belief in its own anti-western propaganda has put Beijing at risk of ’miscalculation’ which could threaten international security’’, the head of the UK’s Secret Intelligence Service has warned. *FT Nov 30*

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Thank you

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