Did nuclear, renewable and gas meet energy demand growth in the last decade?

GLOBAL COAL DEMAND EVOLUTION

GLOBAL COAL DEMAND EVOLUTION EXCEPT CHINA
Is coal a declining industry?

Incremental coal demand during the outlook period

This map is without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries, and to the name of any territory, city or area.
Are developed countries getting rid of coal?

Coal demand projections

- OECD
- Americas
- OECD Europe
- OECD Asia Oceania

Mtce

Are EPA rules pushing coal out of US power mix?

LCOE for retrofitted coal plants and CCGTs at different gas prices
Can US coal compete against natural gas?

Generation cost of coal versus gas in US

Gas at $6/MBtu

Gas at $4/MBtu

USD/MWh

PRB

Central App

Illinois

Transport

FOR
Is a coal renaissance in Europe happening?

Thermal coal and lignite demand in Europe
Did low coal prices after 2010 trigger investment?

Timeline of new German coal plants

- Startup
- Final Investment Decision
- Coal advantage over gas
Is local air pollution in China leading to a big coal-to-gas switch?

Gas and retrofitted coal plants generation in China (2014-2019)
Does diversification in China mean a decrease in coal demand?

Electricity generation growth in China by fuel

- Gas and nuclear
- Renewables and other
- Coal

TWh

2006-12

2013-19
Are India and ASEAN overtaking Chinese growth?

Coal demand in non-OECD region during the outlook period

- China
- India
- ASEAN
- Other
Are gas-rich countries using coal in power generation?

New projected capacity in Malaysia

- Coal: 67%
- Natural gas: 24%
- Hydro: 9%

Total: 7,473 MW
Why have prices decreased further?

Indexed coal price markers in local currency

Europe Brent Spot Price FOB
Do gas or liquids from coal make economic sense?

Estimated gas price break-even cost depending on the coal price
Is CCS dead?

Cumulative CO$_2$ captured from production and use of different fuels

- Coal
- Other fuels

Million tonnes of CO$_2$ captured
Concluding Remarks

- Coal demand will grow at 2.1% per year on average, surpassing the 9-billion-tonne threshold.
- All the net growth will occur in Asia, as declines in US and Europe are offset by higher demand in other regions.
- China has entered a moderate pace of growth, but it will remain the elephant in the room for a while.
- Low prices remain due to various reasons all pushing prices down.
- The coal renaissance in Europe is over and no strong growth of US exports to Europe is foreseen.
Comments to the report are welcome and should be addressed to:

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