Gas in a de-carbonising energy system

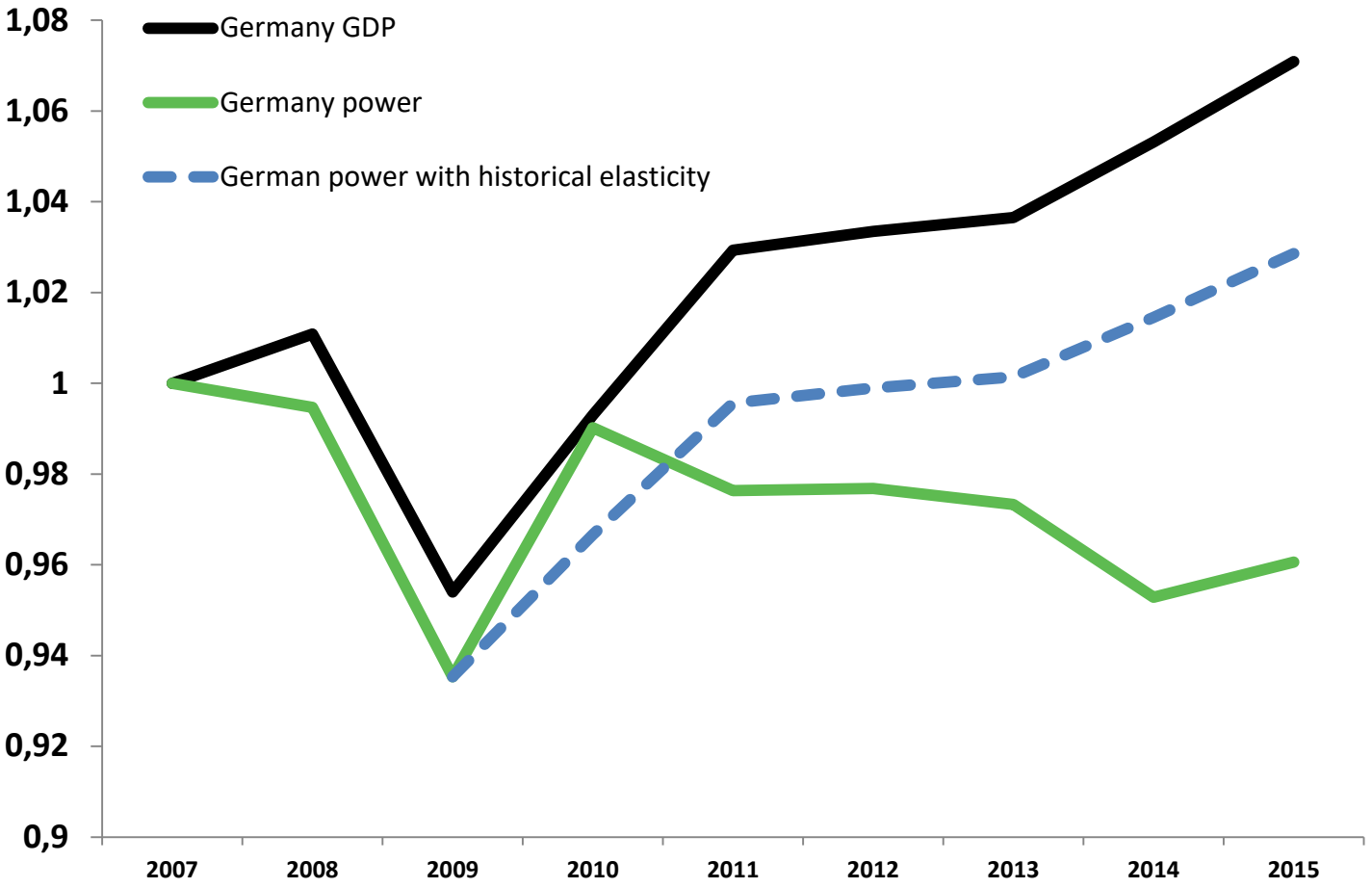
Costanza Jacazio, Senior Energy Analyst (IEA)

Decarbonisation post-Paris

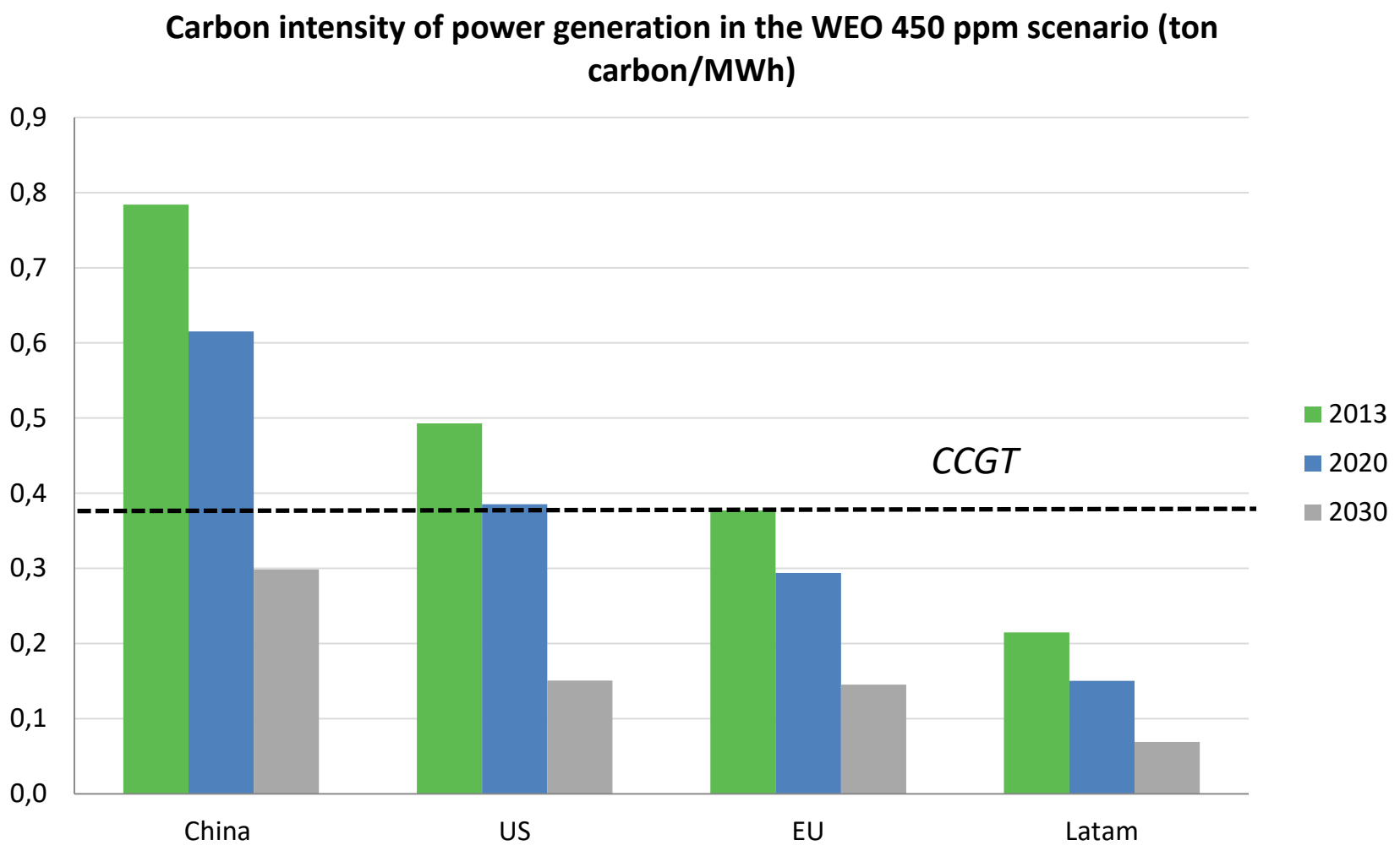
... but there's a tough climb still ahead

We made it to the base camp...

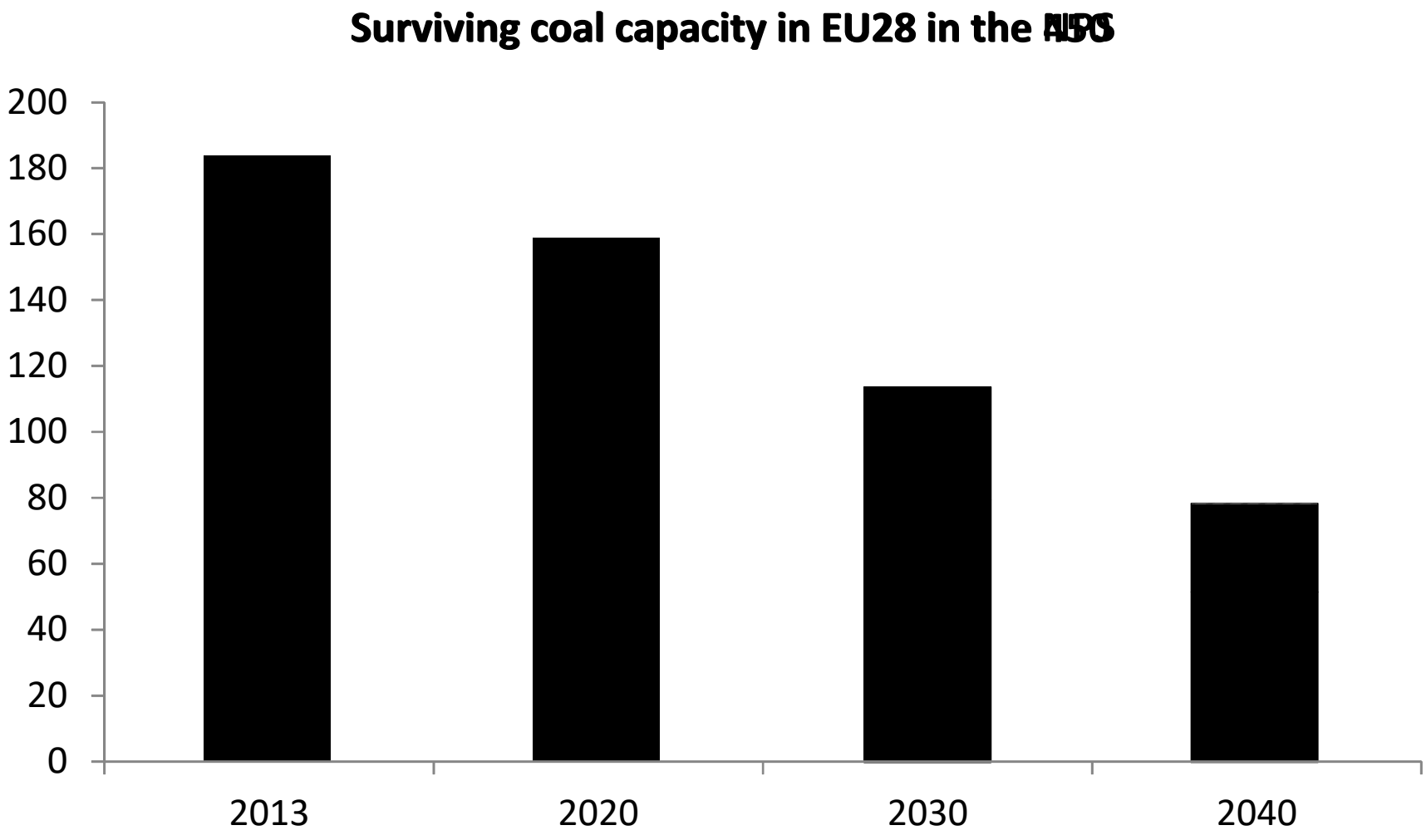
Electricity demand: beyond growth?



Gas could becomes a HIGH carbon fuel on a 450ppm trajectory



Capacity to burn coal is slowly disappearing



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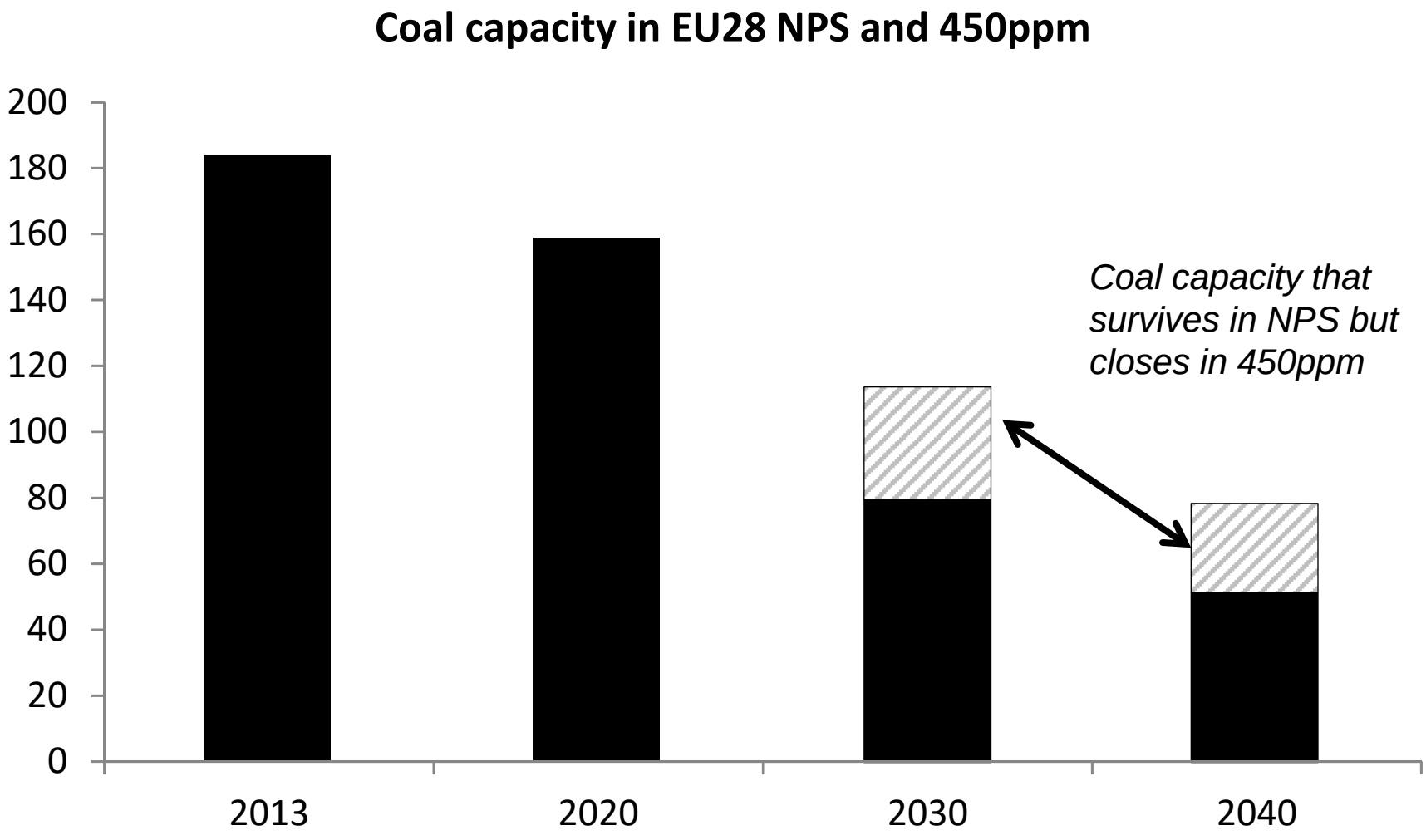

Growth of renewables: a taste of things to come

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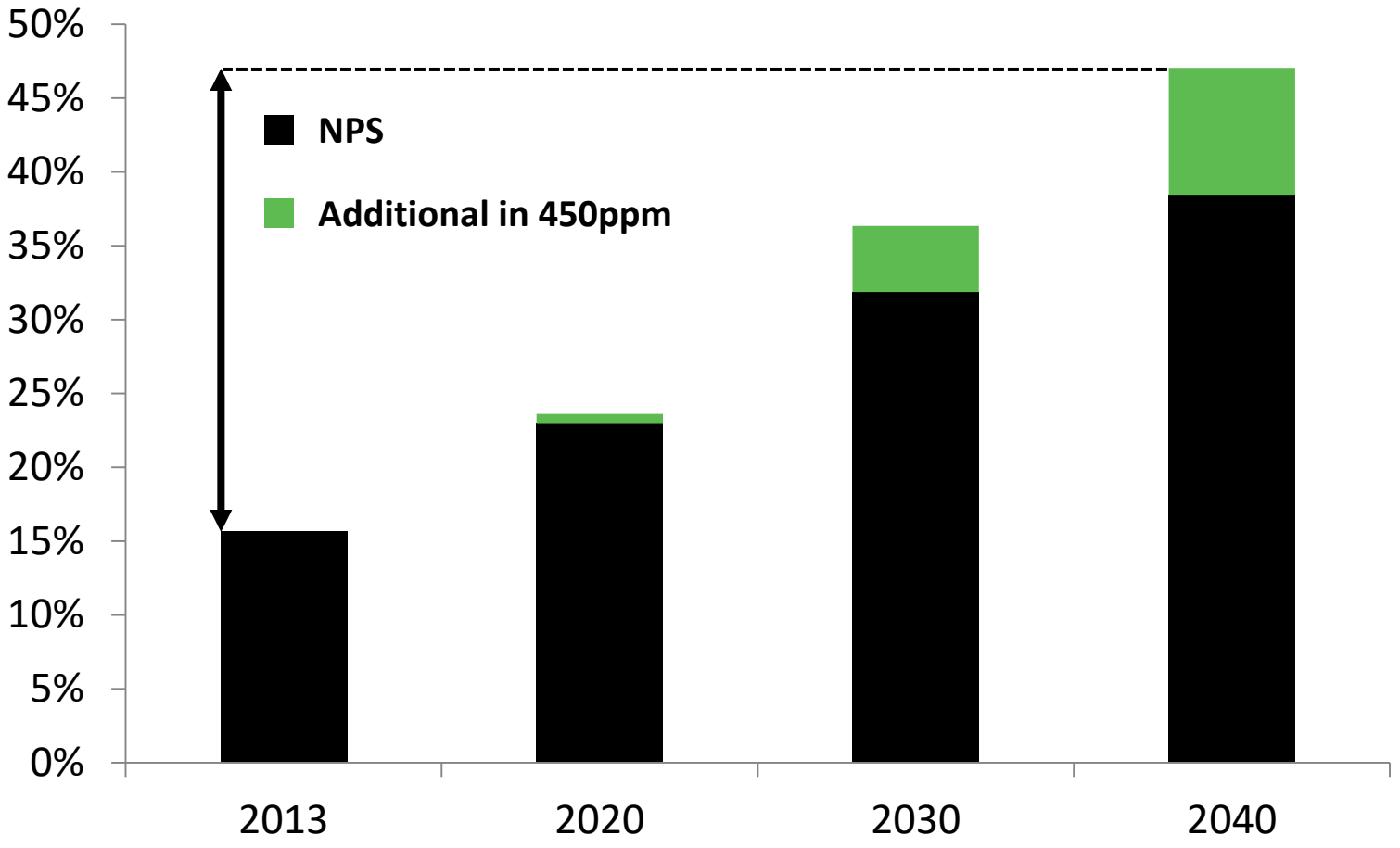
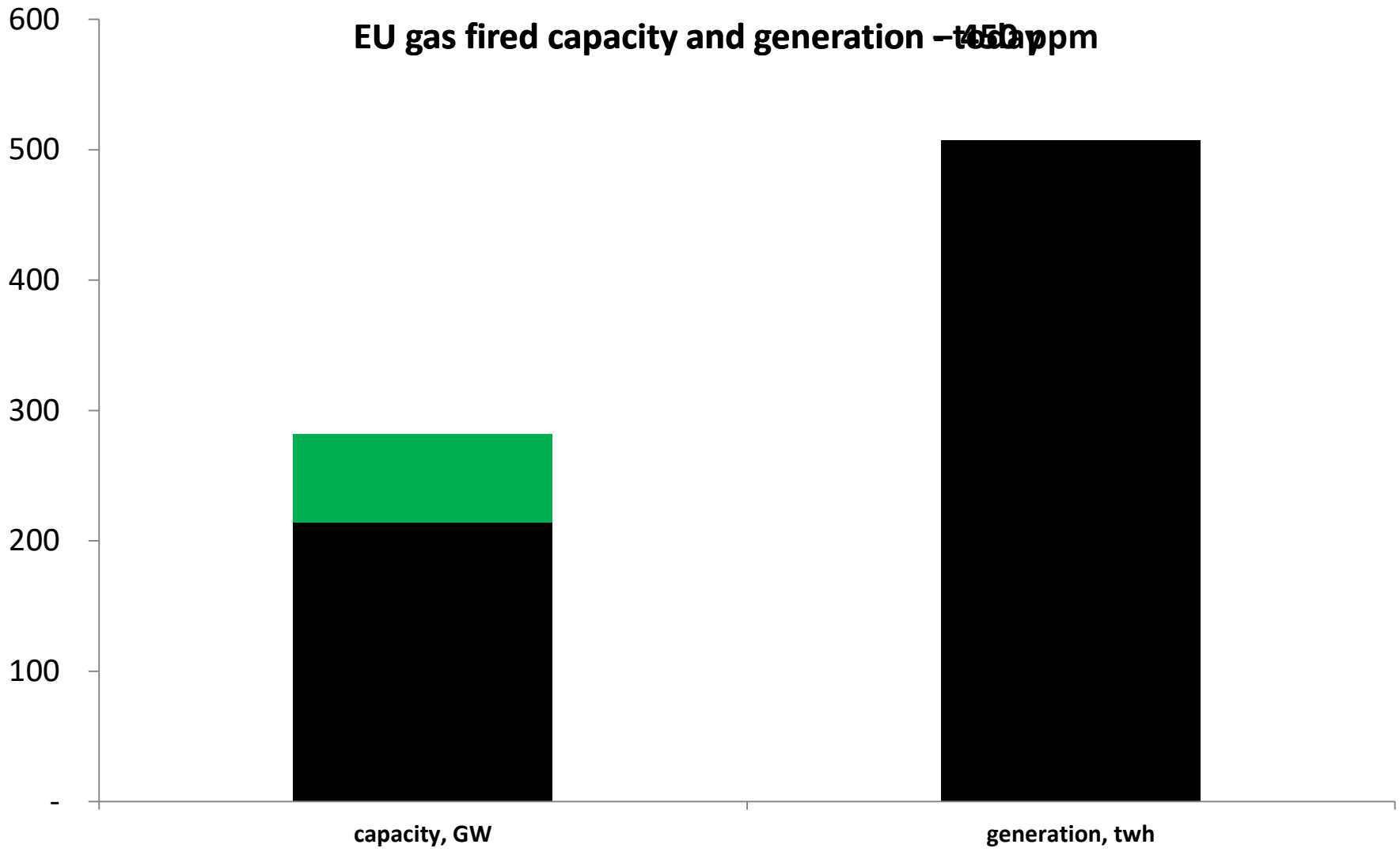
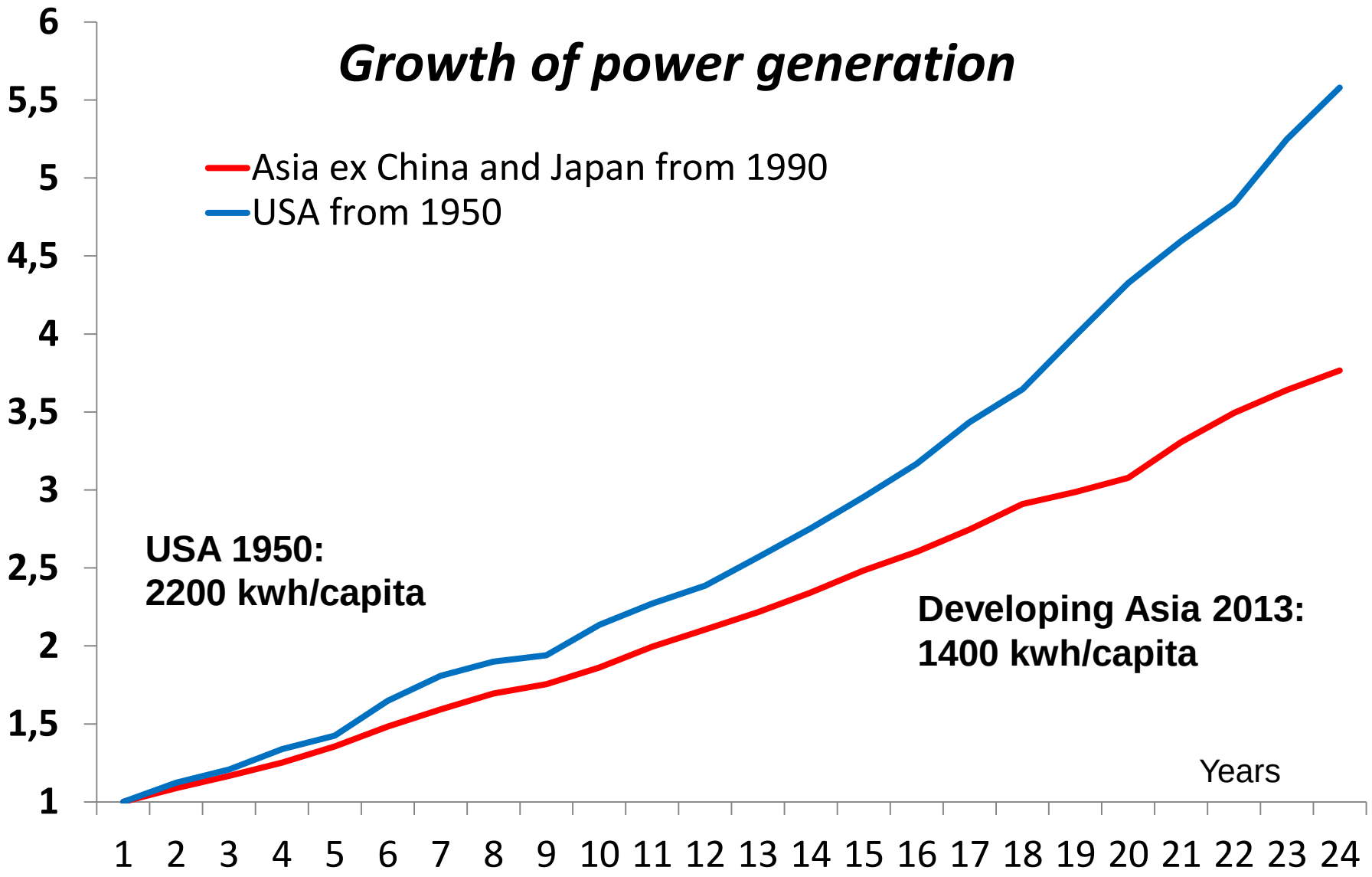
Share of non-hydro renewables in EU power generation



Gas is needed for around 1000 hours a year in a 450ppm system, but then it is really needed



Electricity in Asia: the taste of things to come



Infrastructure costs favour coal power over gas in Asian energy importers

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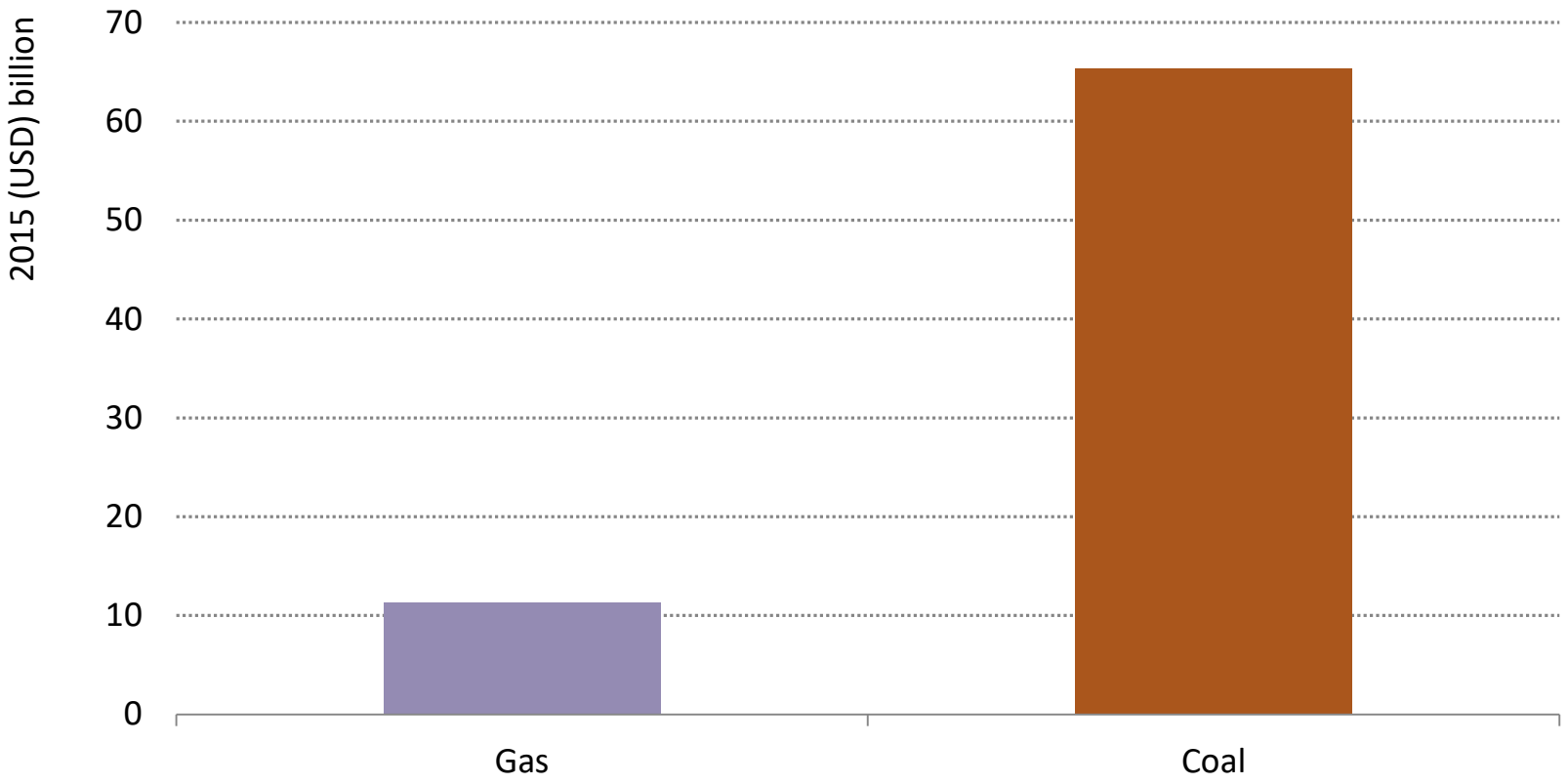
Coal and gas-fired power investment in Asian markets (2015)



Asian markets comprised 85% of global coal power investment, while N. America and Middle East, with robust infrastructure, favoured gas for new fossil fuel power

Conclusions:

- The role of gas as a 'transition fuel' in Europe might be quite limited.
- Gas will remain essential for balancing (especially seasonal variations)
- Huge electrification needs of developing Asia pose major challenge for the energy industry. Gas has role to play towards environmentally sustainable development.
- High transportation costs for gas (LNG) major barrier to faster penetration of gas in the power sector.

Thank you for your attention!

Low carbon future – what does it hold for fossil fuel investments?

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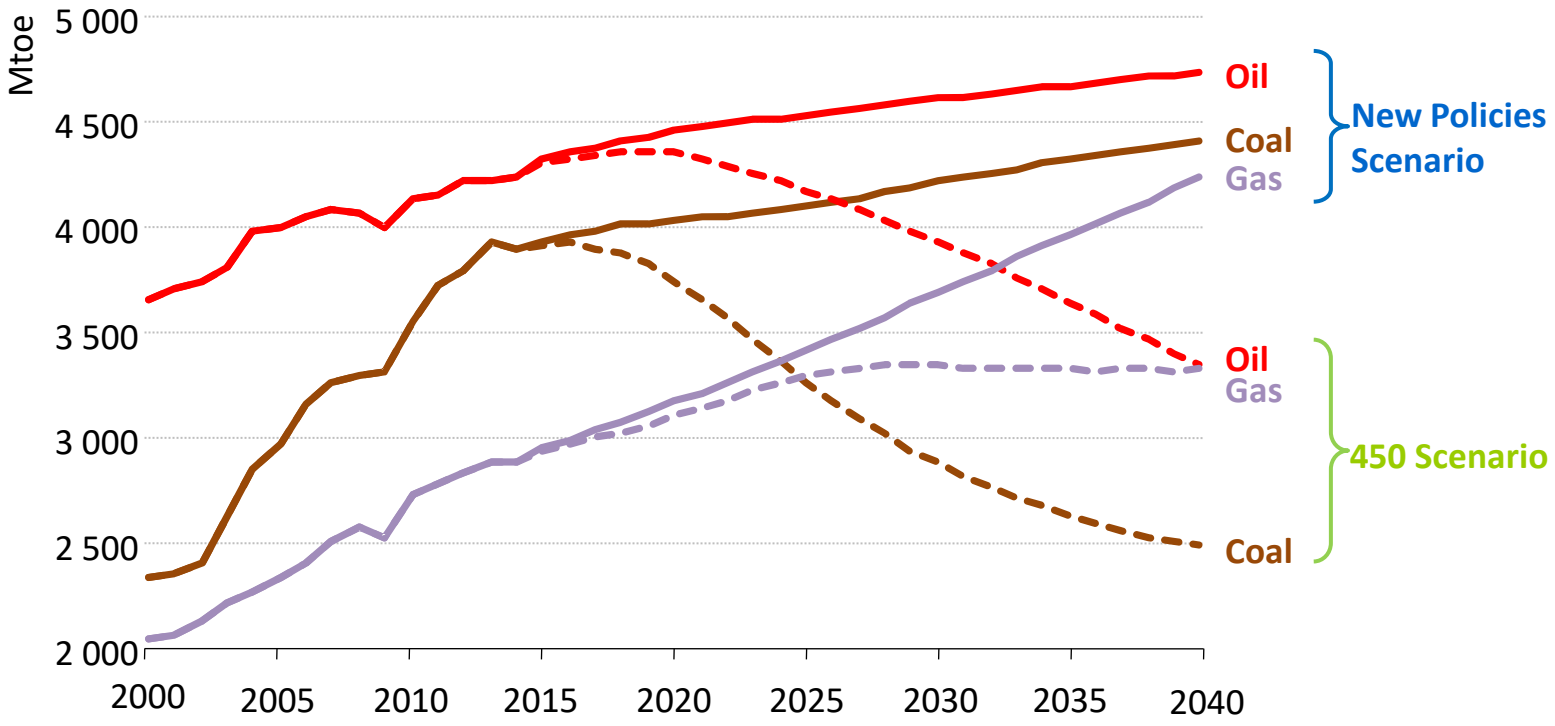
Global fossil-fuel demand by scenario



Gas demand sees growth, while coal & oil decline in a carbon-constrained world, but majority of oil & gas investment is intact due to the natural decline of fields