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WORLD ENERGY INVESTMENT OUTLOOK

Special Report

Marco Baroni

Directorate of Global Energy Economics

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After the rapid rise in investment in the 2000s, a pause

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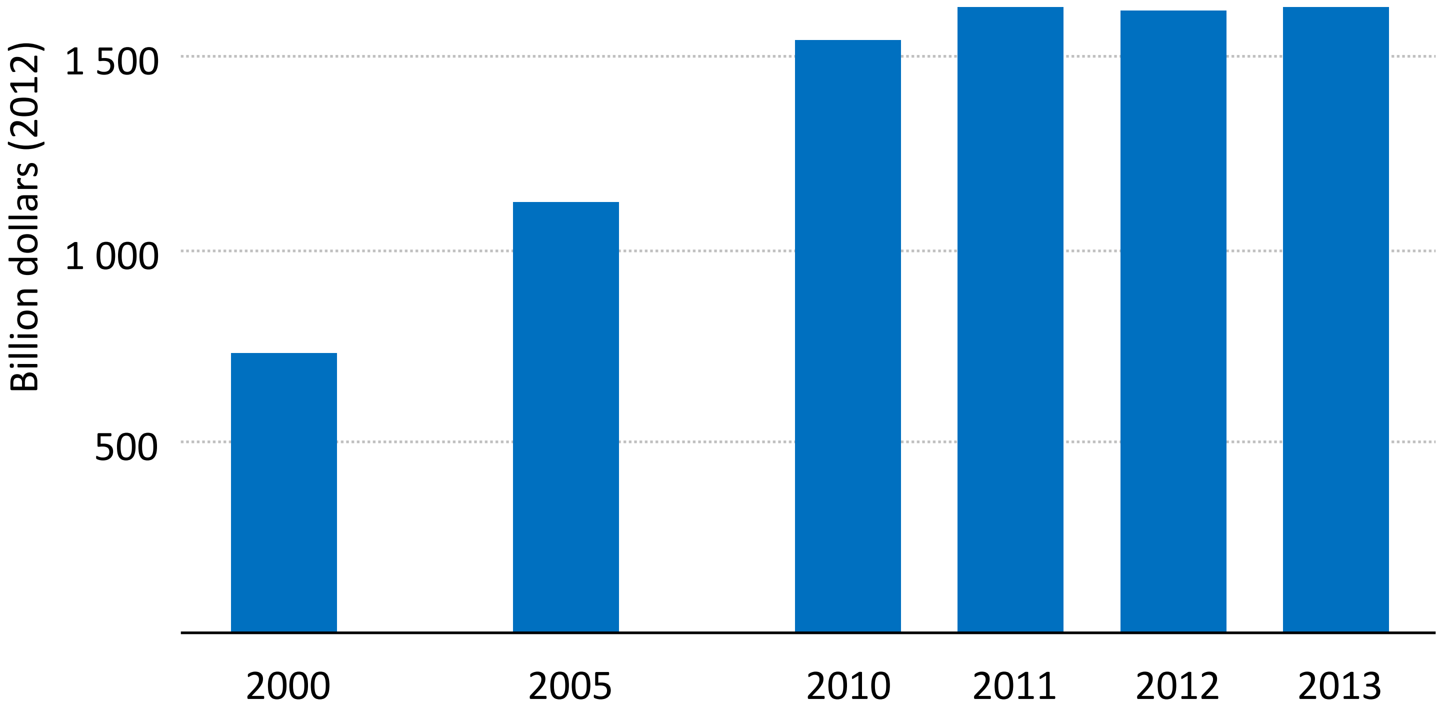
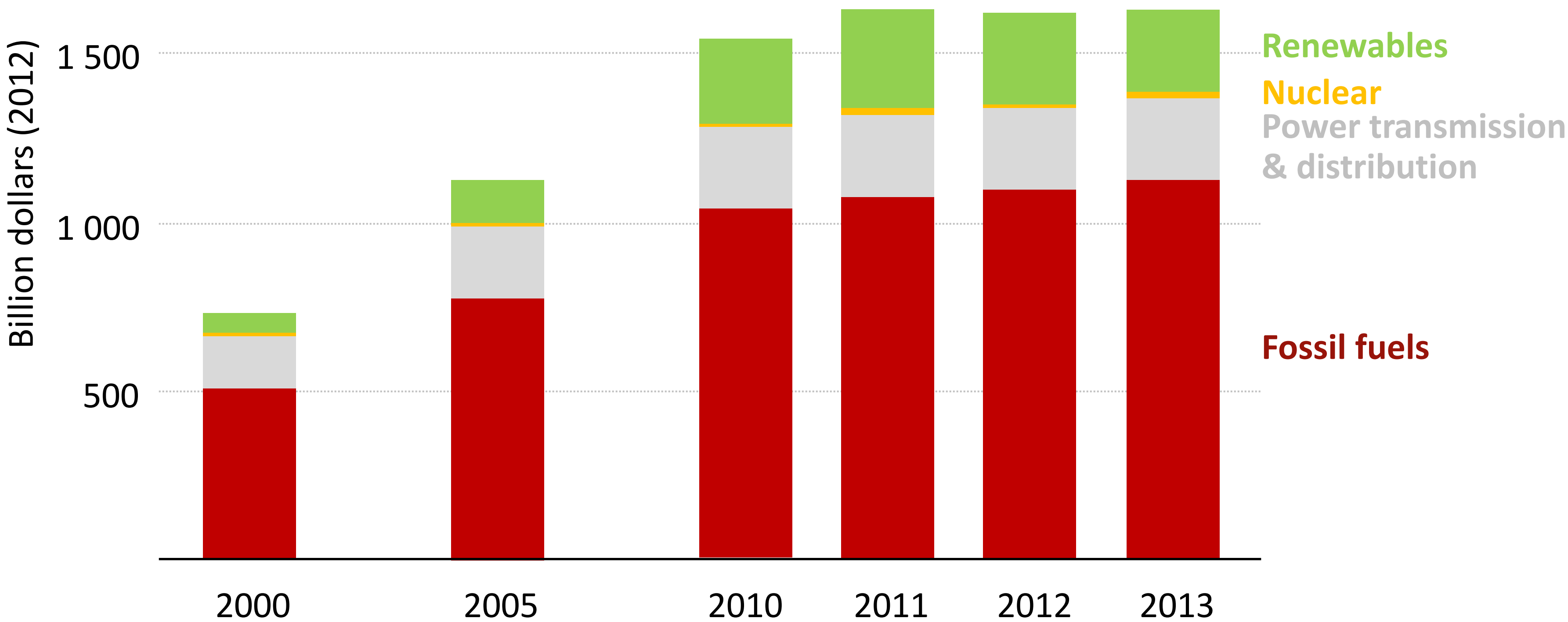
Annual energy supply investment



$1.6 trillion was invested in 2013 to provide consumers with energy, a figure that has more than doubled in real terms since 2000

Renewables come of age, but fossil fuel investment still dominant

Annual energy supply investment



Investment in renewables rose from $60 billion in 2000 to a high point approaching $300 billion in 2011, before falling back since

States hold many of the cards

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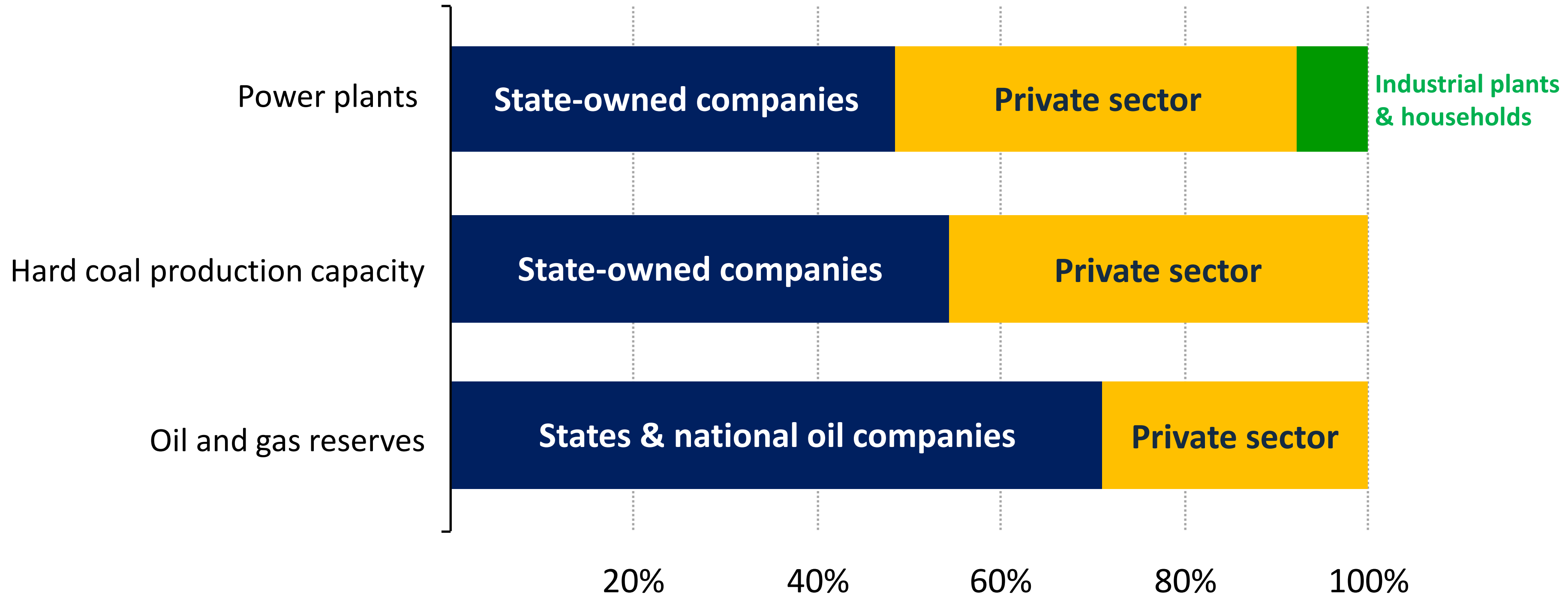
Ownership of worldwide power plants, hard coal production, and oil & gas reserves



Alongside investment by the private sector, the objectives, corporate culture & financing of state-owned companies are critical to future energy investment flows

Governments, not market signals, are driving power sector investment

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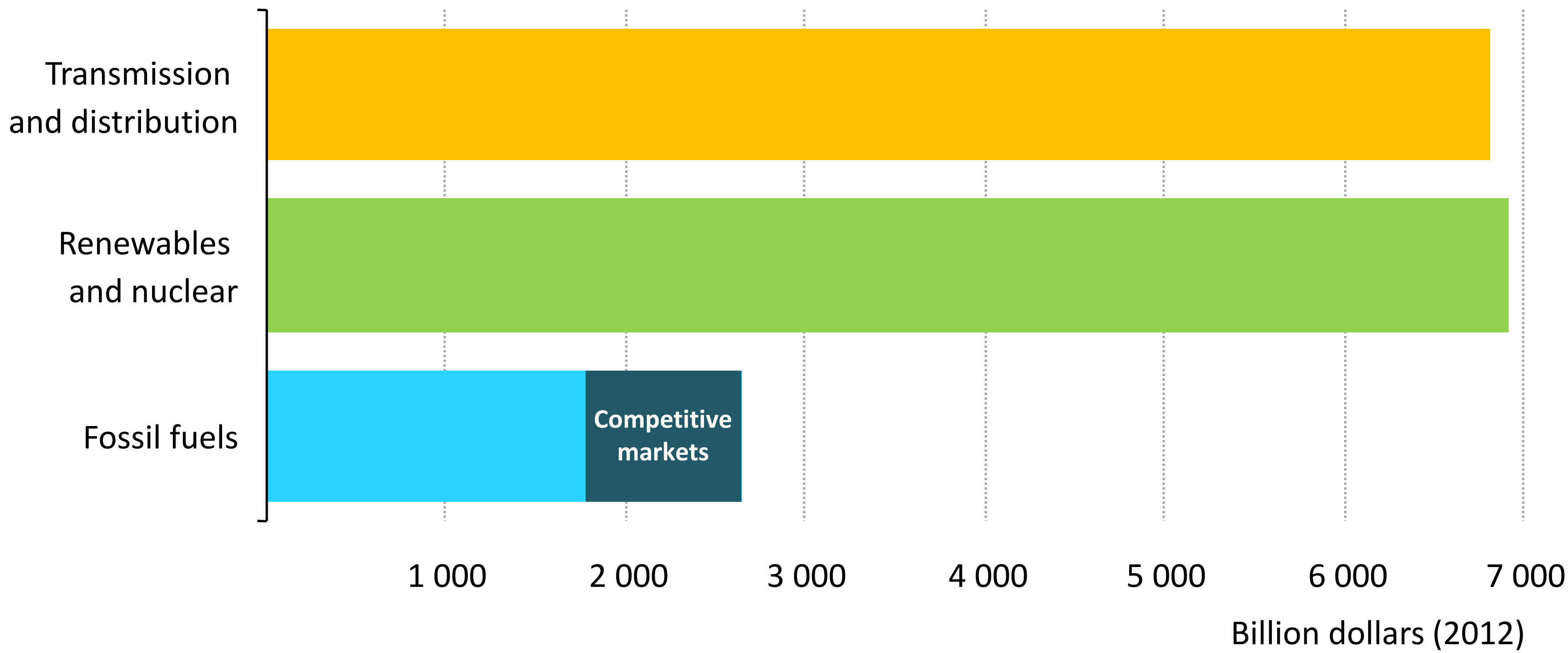
Power sector investment, 2014-2035



With current market designs, competitive parts of markets require less than $1 trillion of cumulative investment to 2035 out of total power sector needs of $16.4 trillion

Will Europe keeps the lights on?

- Over the past decade, four-fifths of investment in European power generation went to renewables, 60% just to wind and solar PV
- Europe needs to invest \$2.2 trillion (2nd largest after China) to 2035 to replace ageing infrastructure & meet decarbonisation goals
- This investment won't happen with current market rules: wholesale power prices are 20% (or 20\$/MWh) below cost-recovery levels
- Current overcapacity offers some breathing space, but 100 GW of new thermal plants is needed before 2025 to safeguard reliability
- Higher wholesale prices could increase end-user bills, adding to the strain on households & on competitiveness of EU industry

A new investment landscape for a 2 °C world

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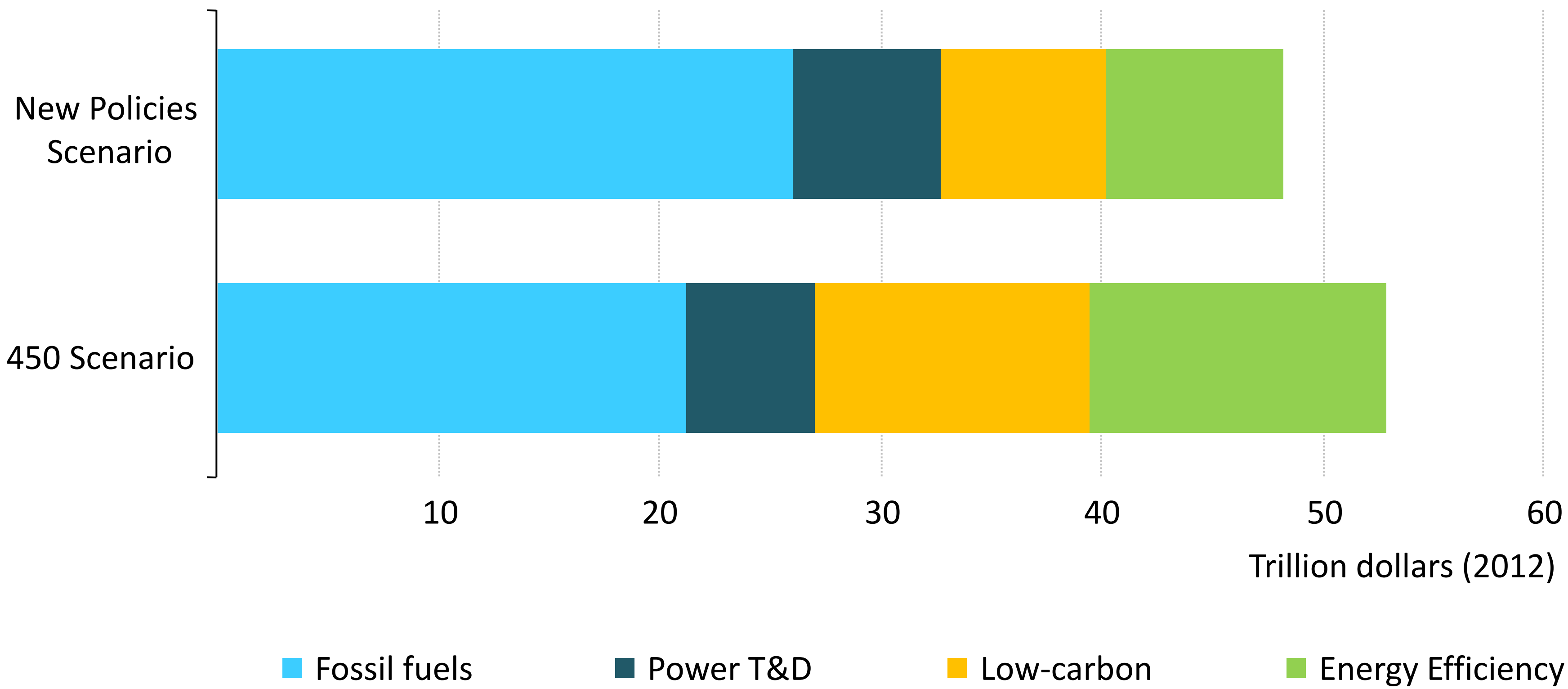
Investment in the New Policies and 450 Scenarios, 2014-2035



Efficiency spending is $6 trillion higher & the composition of supply investment changes: CCS is widely deployed, $300 billion of fossil fuel investment is left stranded

Committing capital in a fast-changing energy world

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- The role of governments in energy markets is on the rise, while private investors are wary of political and regulatory risks
- Energy investments are moving to areas with high up-front costs, complicating the task of securing finance
- Without reform to power markets, the reliability of Europe's electricity supply is under threat
- Credible policy & pricing signals, plus new financing vehicles, are essential to re-direct capital flows towards a 2 °C target