



World Energy Outlook 2017

**IGU Diplomatic Gas Forum
Madrid, 22 November 2017**

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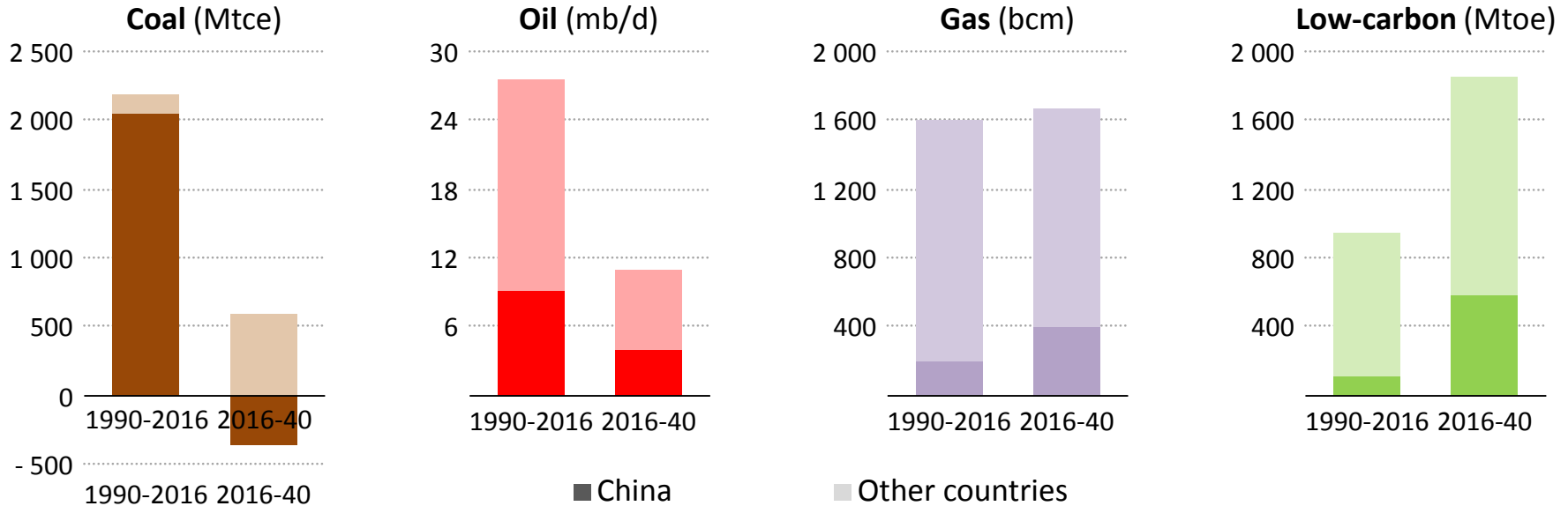
Tipping the energy world off its axis

- Four large-scale upheavals in global energy set the scene for the new *Outlook*:
 - The **United States** is turning into the undisputed global leader for oil & gas
 - **Solar PV** is on track to be the cheapest source of new electricity in many countries
 - **China's** new drive to “make the skies blue again” is recasting its role in energy
 - The future is **electrifying**, spurred by cooling, electric vehicles & digitalisation
- There are many possible pathways ahead & many potential pitfalls if governments or industry misread the signs of change

A world in motion..

.. as China moves global energy markets, again

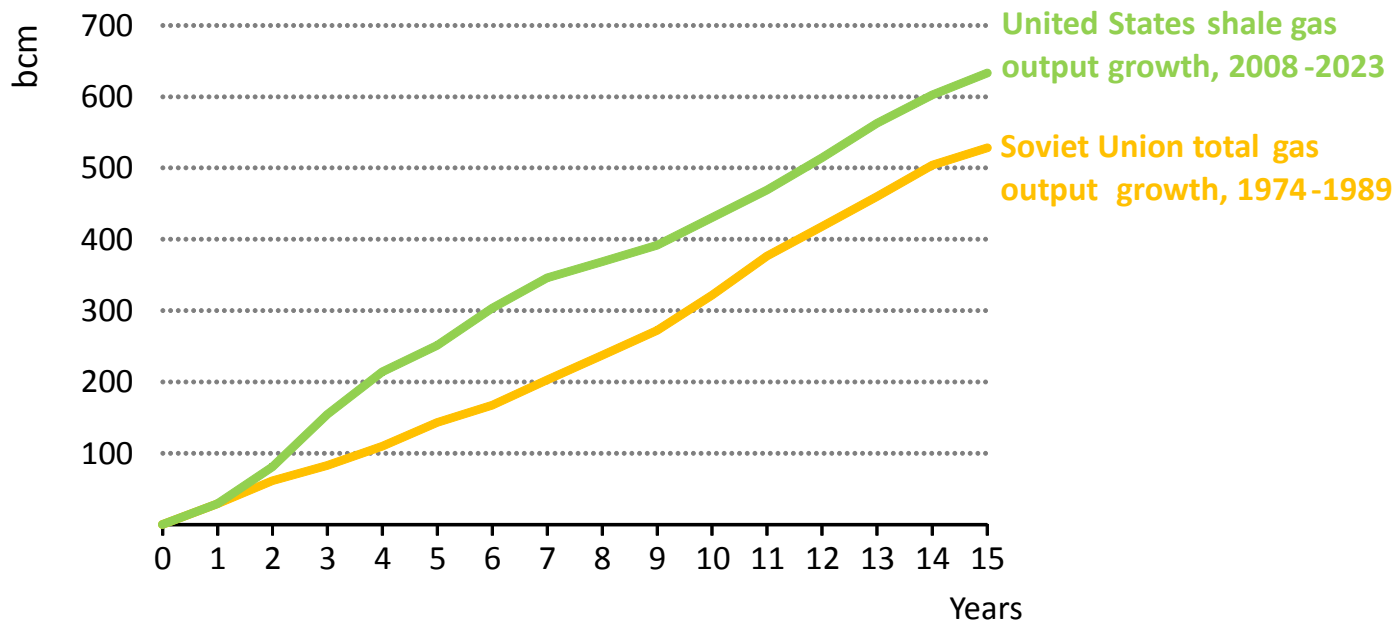
Change in world energy demand by fuel



Low-carbon sources & natural gas meet 85% of the increase in global demand: China's switch to a new economic model & a cleaner energy mix drives global trends

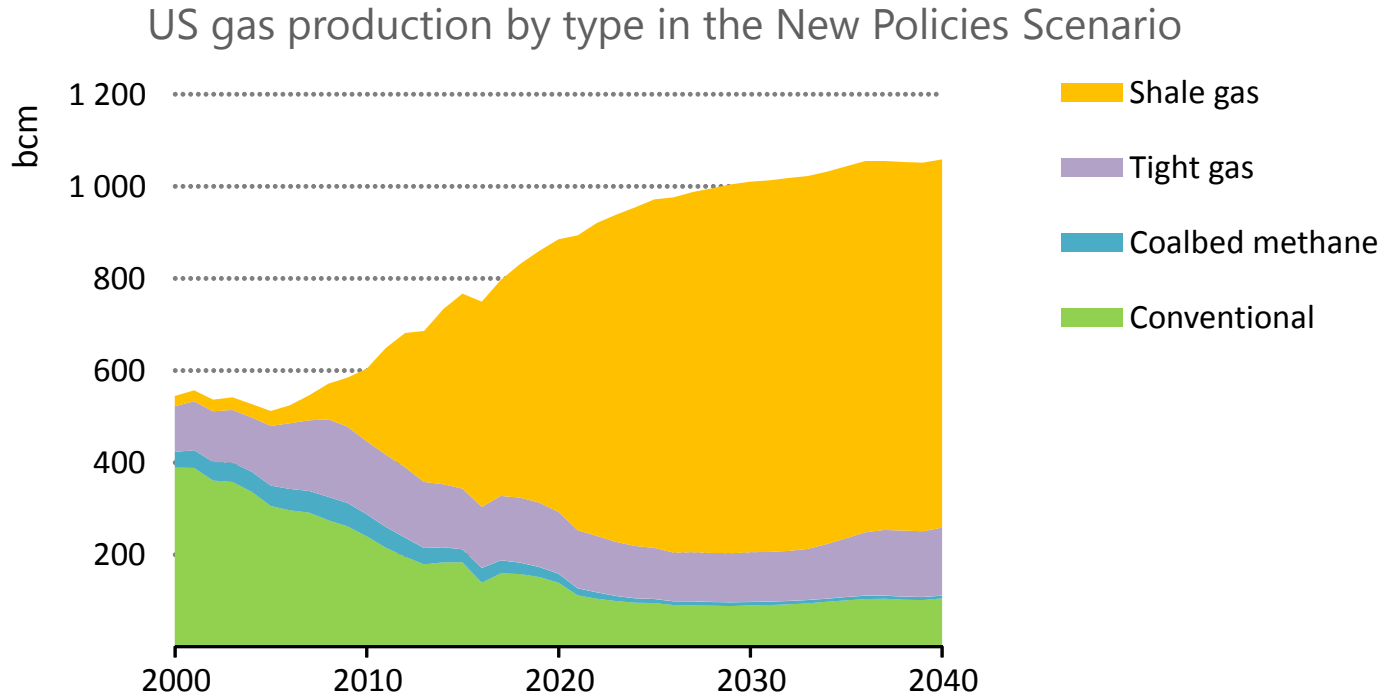
US remains undisputed leader of gas production

Rise in US shale gas output versus the steepest ramp-up in gas production in the Soviet Union



US shale growth between 2008 and 2023 is probably unprecedented in gas markets, exceeding the growth achieved by the Soviet Union between 1974 and 1989

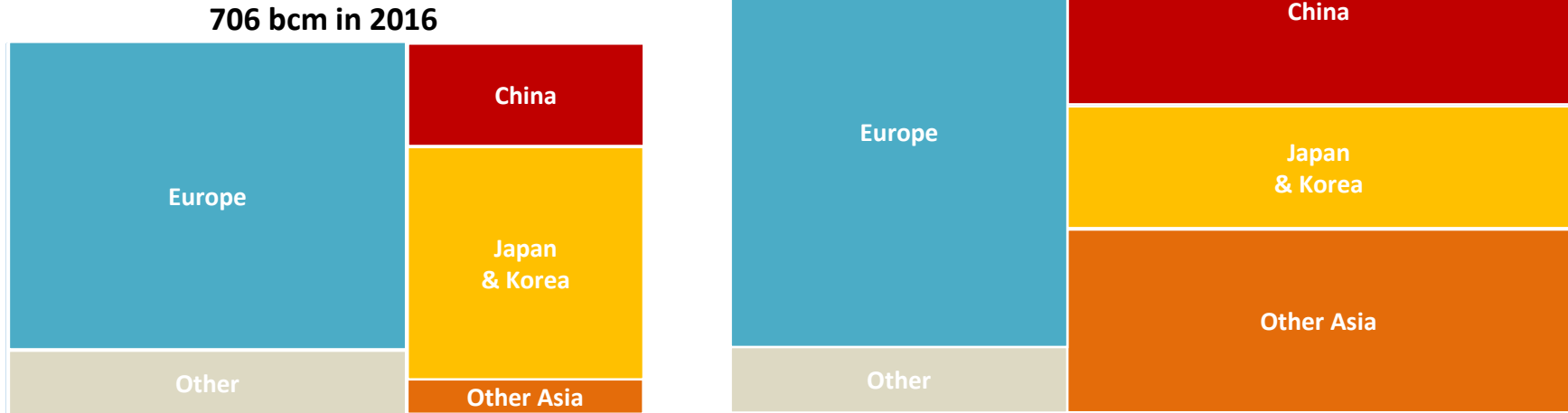
Shale boom is turning US into major energy exporter



The US is set to become the largest LNG exporter by the mid-2020s and a net-exporter of oil in the late 2020s

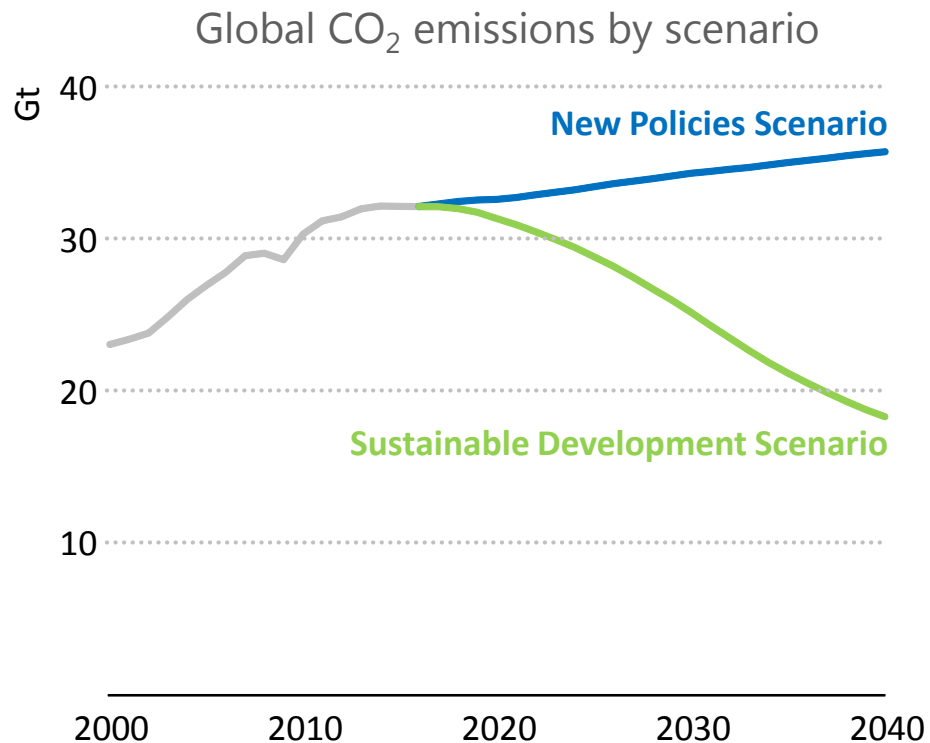
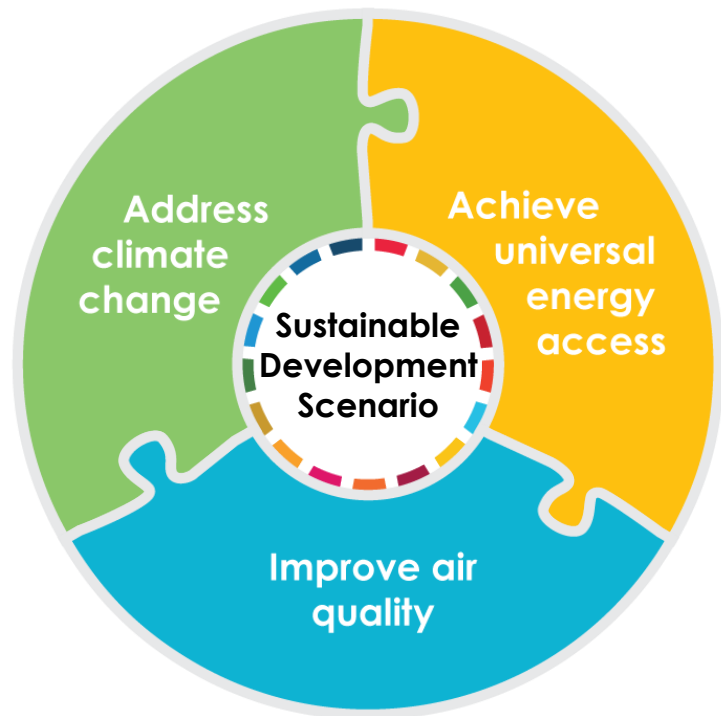
LNG ushers in a new global gas order

Gas importers



Asia's growing gas import requirements are largely met by LNG, with exports from the US accelerating a shift towards a more flexible, liquid global market

A new strategy for energy & sustainable development



The Sustainable Development Scenario reduces CO₂ emissions in line with the objectives of the Paris Agreement, while also tackling air pollution and achieving universal energy access



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