



Dr. Johannes Trüby Brussels, 7 December 2017

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

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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



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



US gas production by type in the New Policies Scenario



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



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

The EU faces a different set of challenges



Natural gas balance of the European Union in the New Policies Scenario



Even with a flat demand outlook, the European Union's gas imports increase to 2040 as domestic output continues to decline

EU is ready to take more LNG



Natural gas imports in the European Union in the New Policies Scenario



EU gas imports grow but so does supplier diversity, not least due to a boost in LNG trade

China a major force in global gas markets





Industrial gas demand leads the way as China accounts for one-quarter of global gas growth to 2040; China's growing import needs become a major spur for investment in new global supply





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