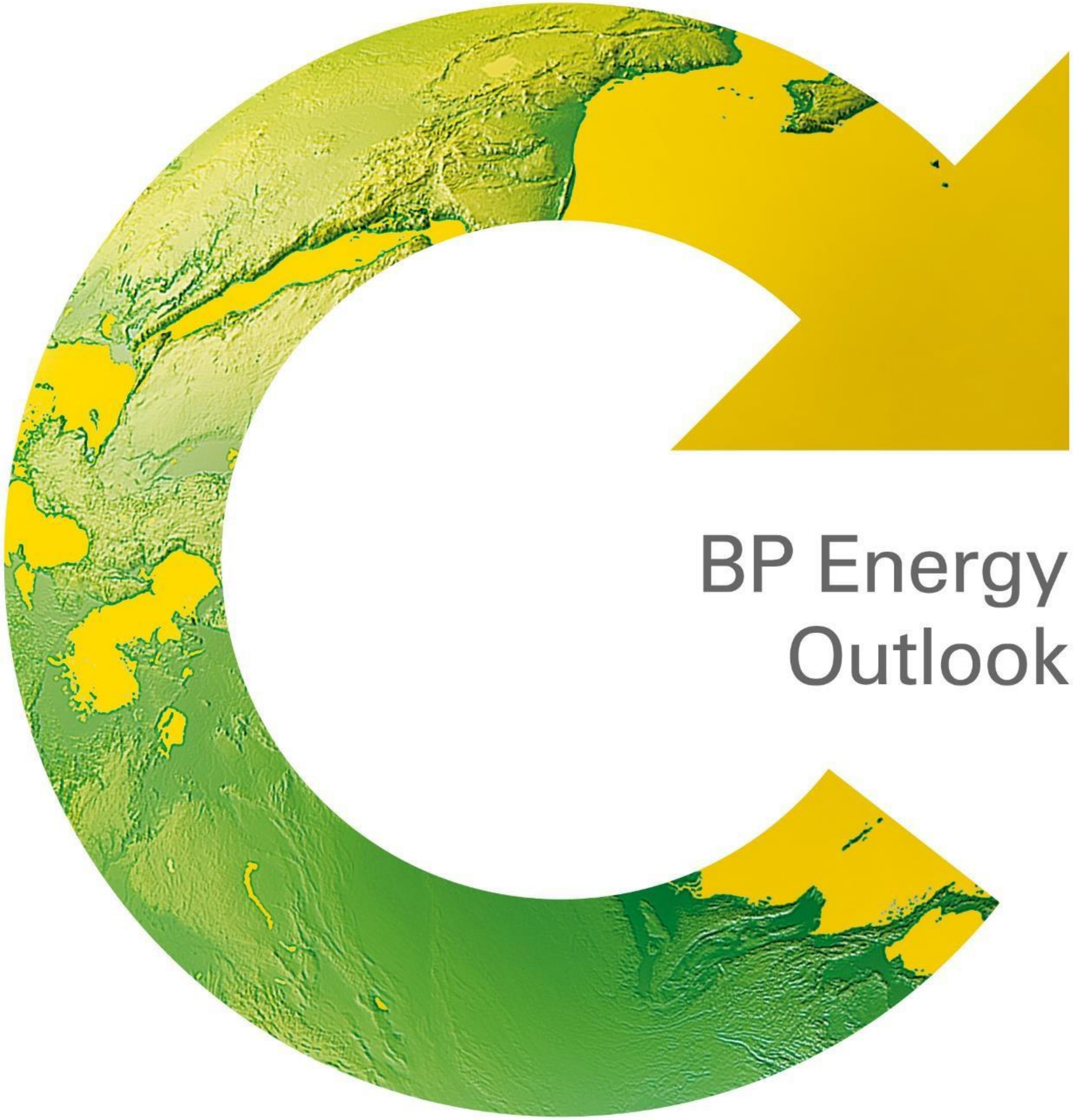

BP Energy Outlook | 2018 edition

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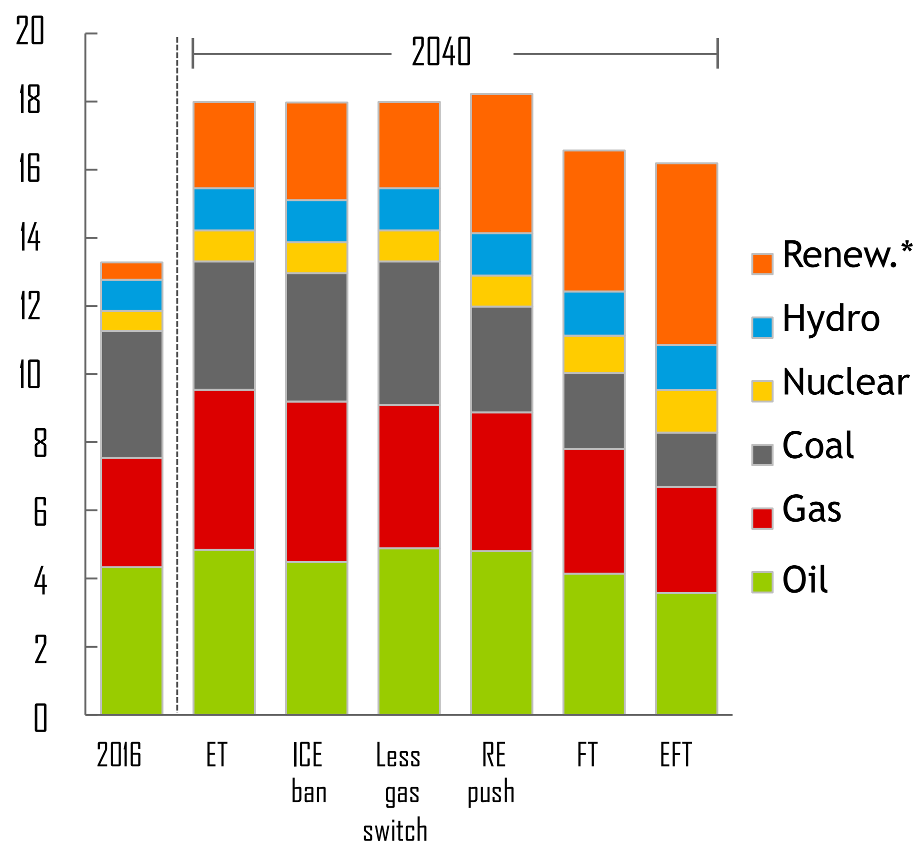
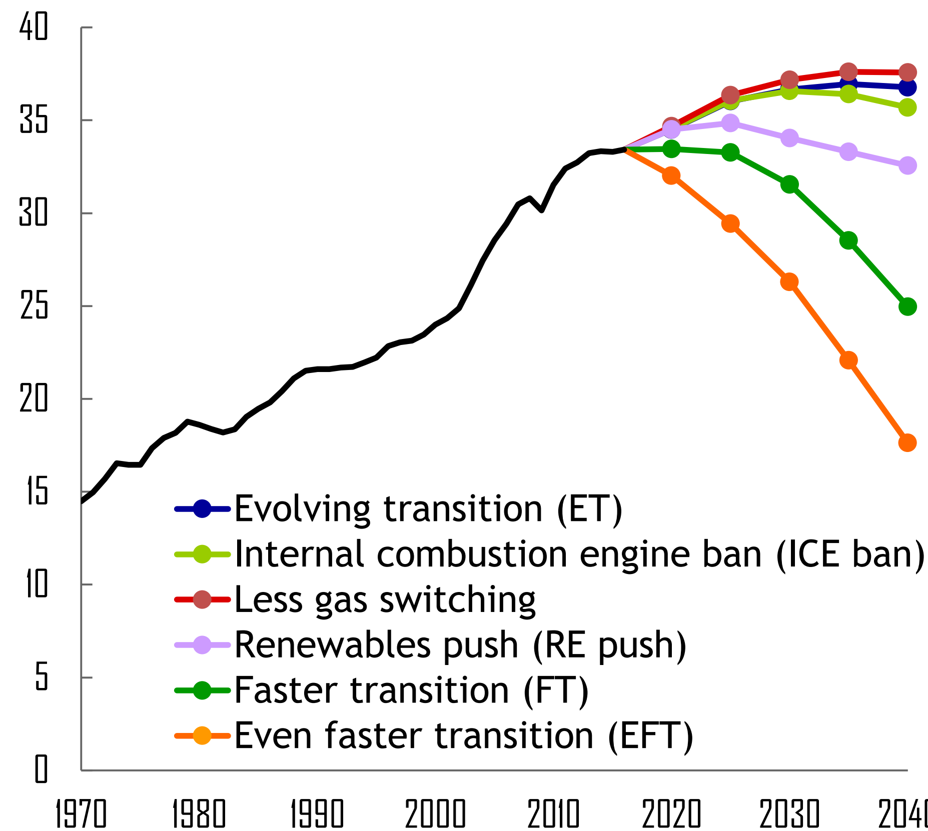
The Energy Outlook considers a range of scenarios...

Primary energy consumption by fuel

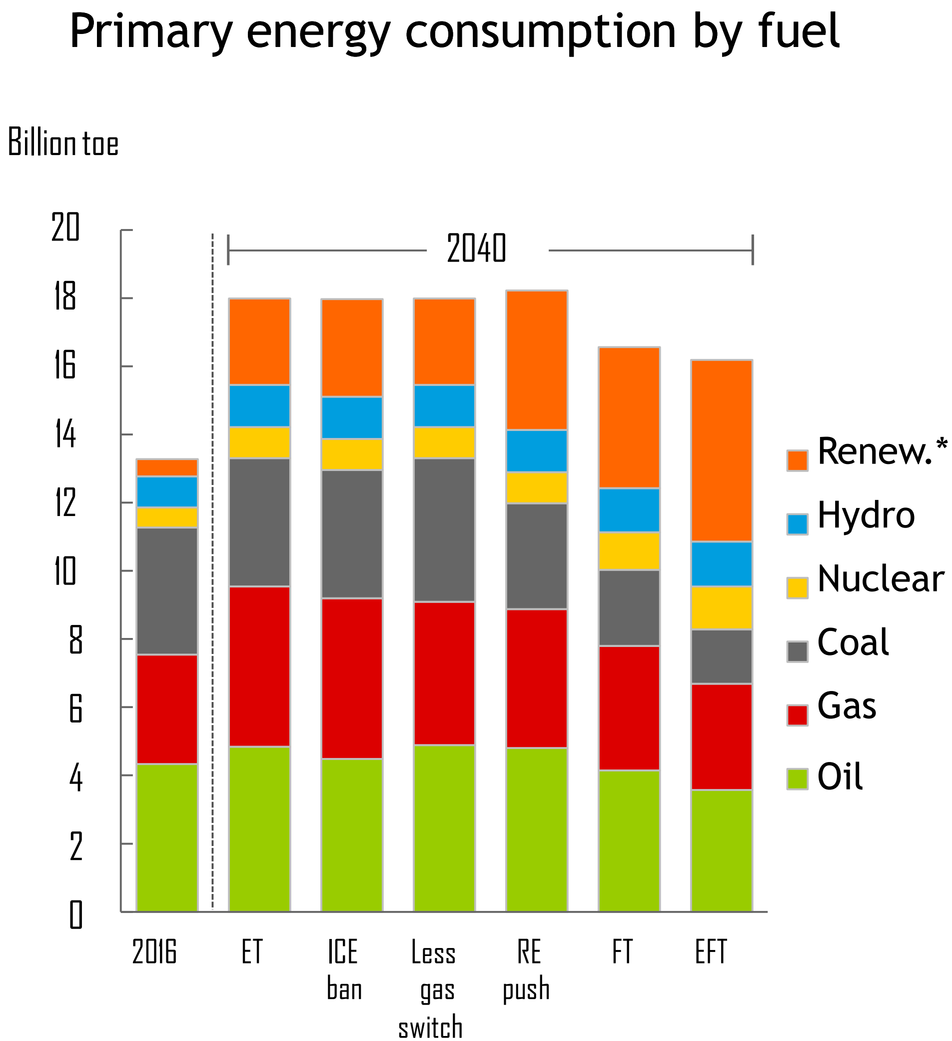


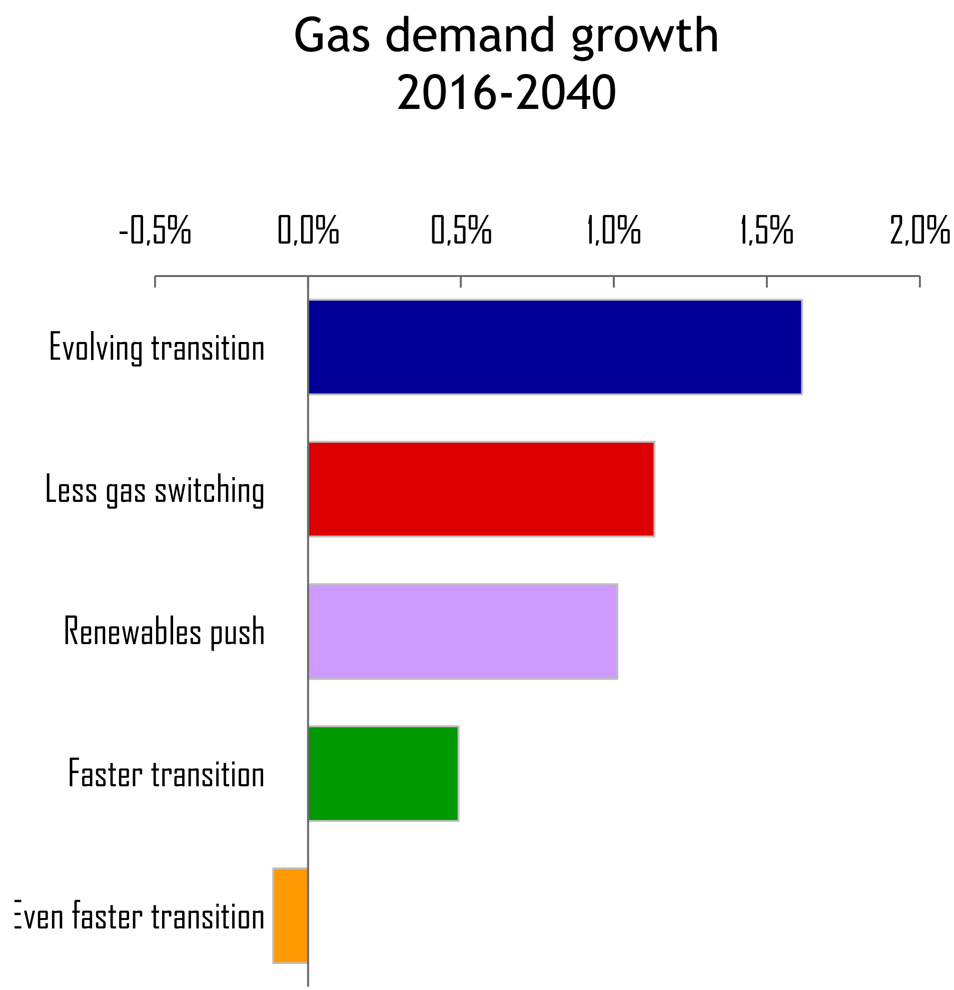
Carbon emissions



*Renewables includes wind, solar, geothermal, biomass, and biofuels

The Energy Outlook considers a range of scenarios…

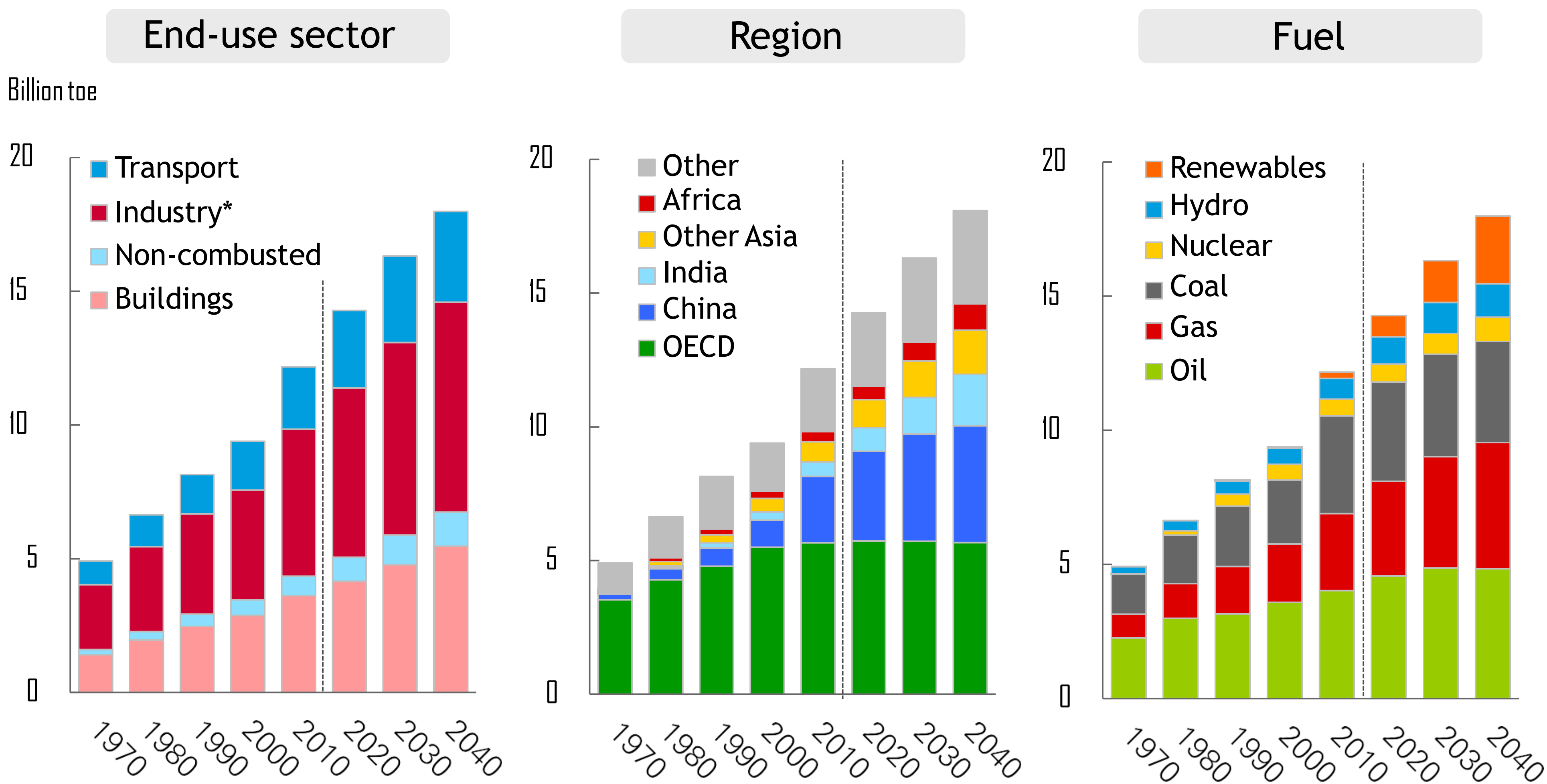




*Renewables includes wind, solar, geothermal, biomass, and biofuels

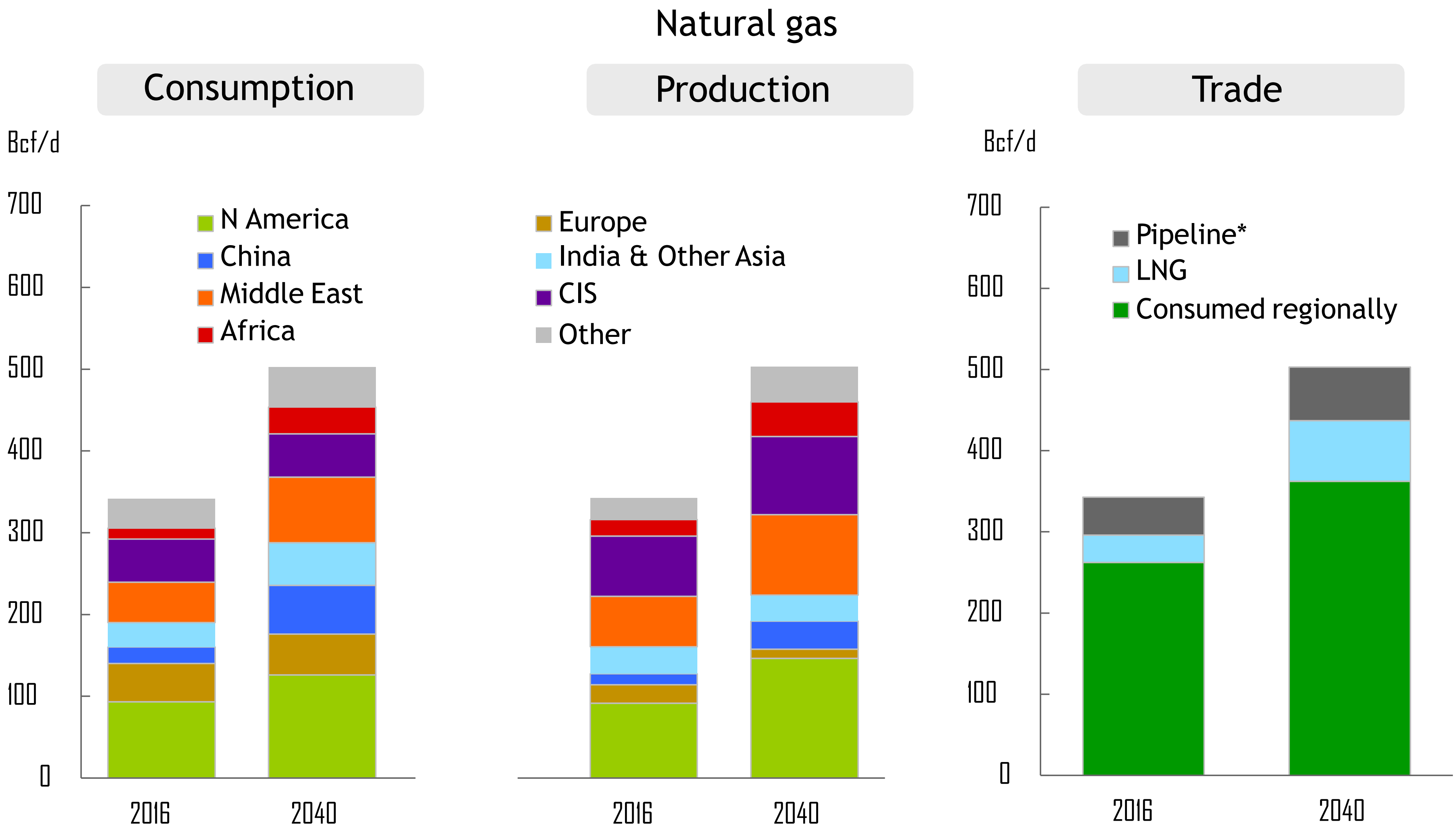
And looks at the energy transition through different lenses

Primary energy demand



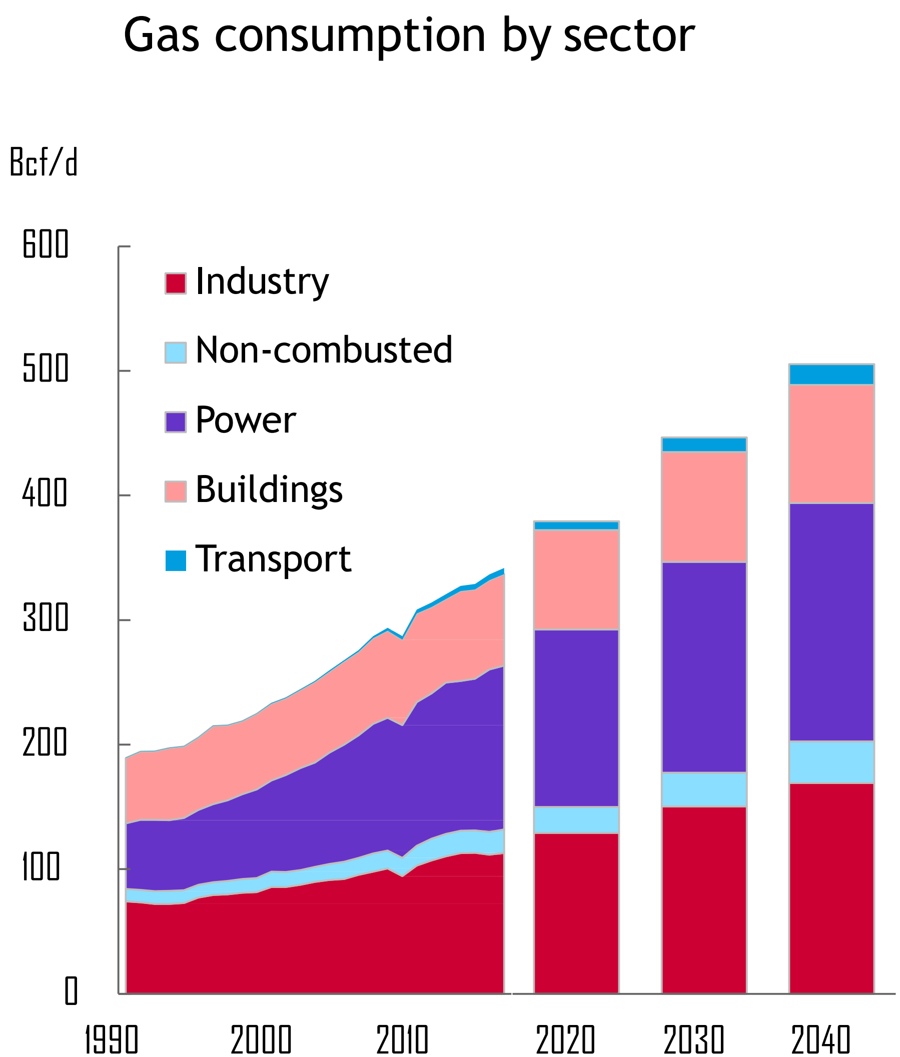
*Industry excludes non-combusted use of fuels

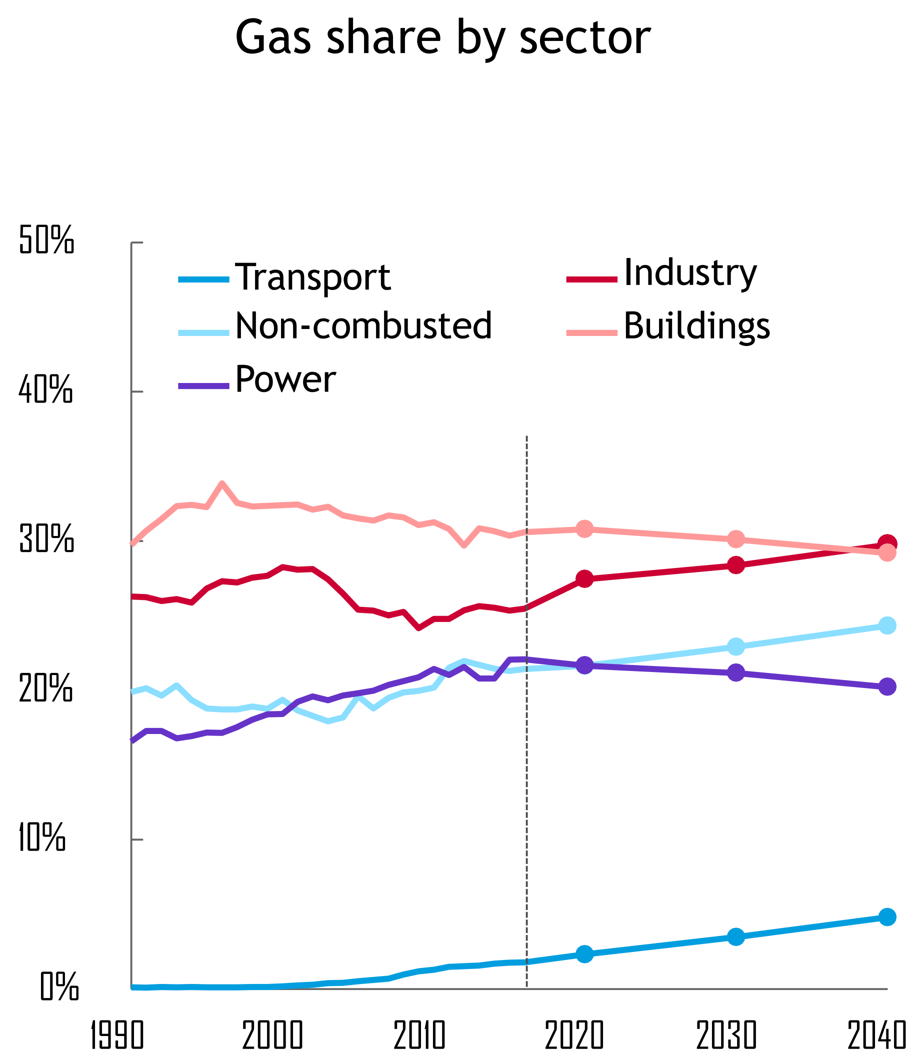
Natural gas grows strongly…



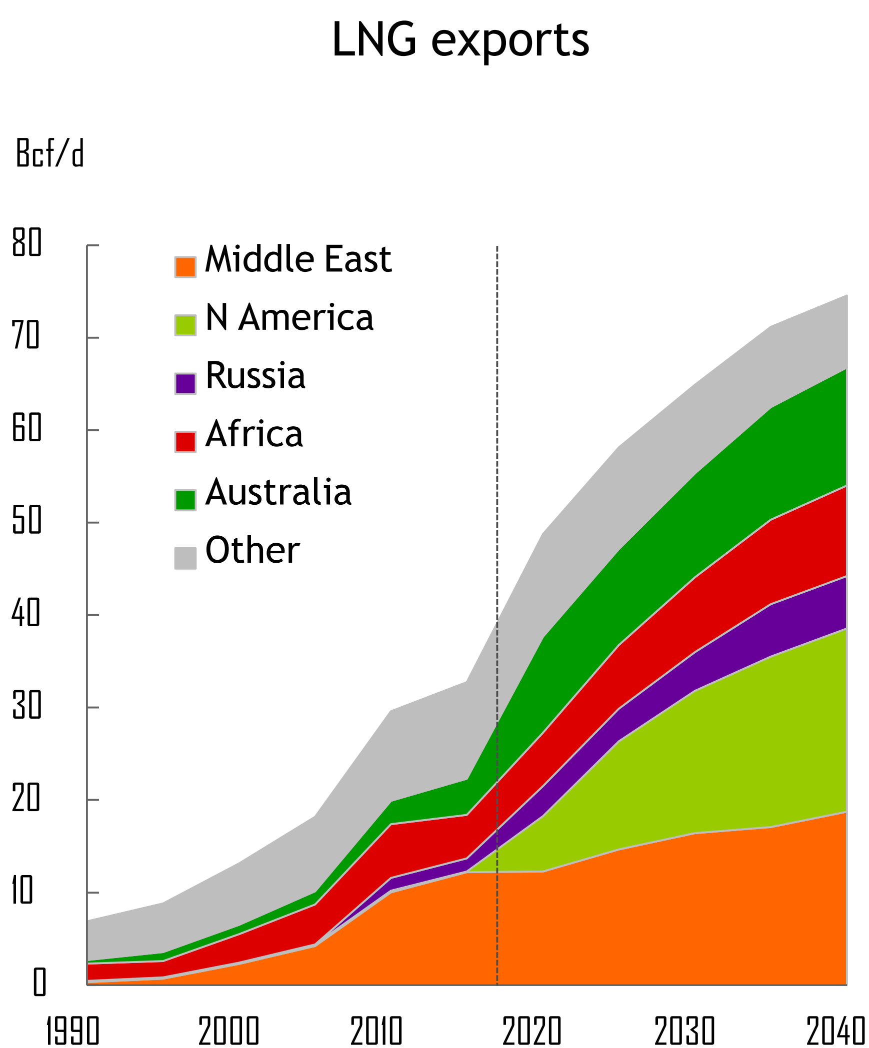
*Pipeline gas refers to inter-regional pipeline trade

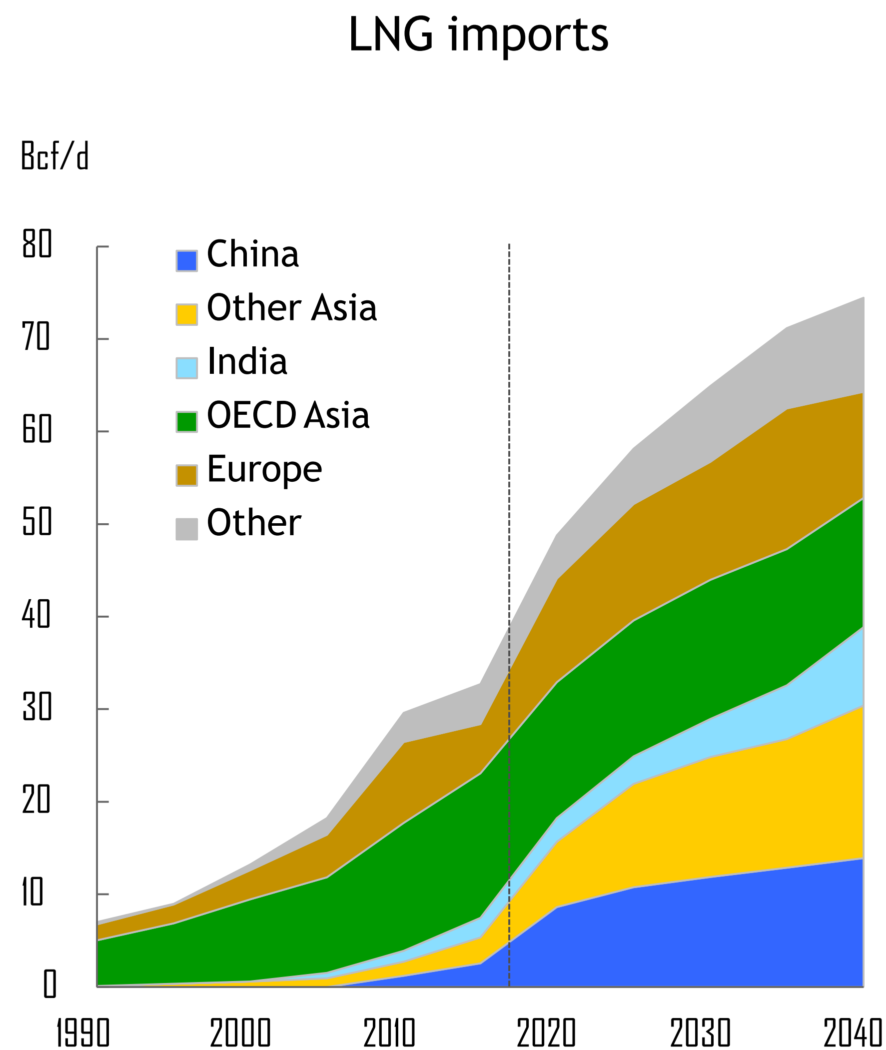
Its growth being largely driven by industrial and power sectors





LNG will increase the global availability of gas

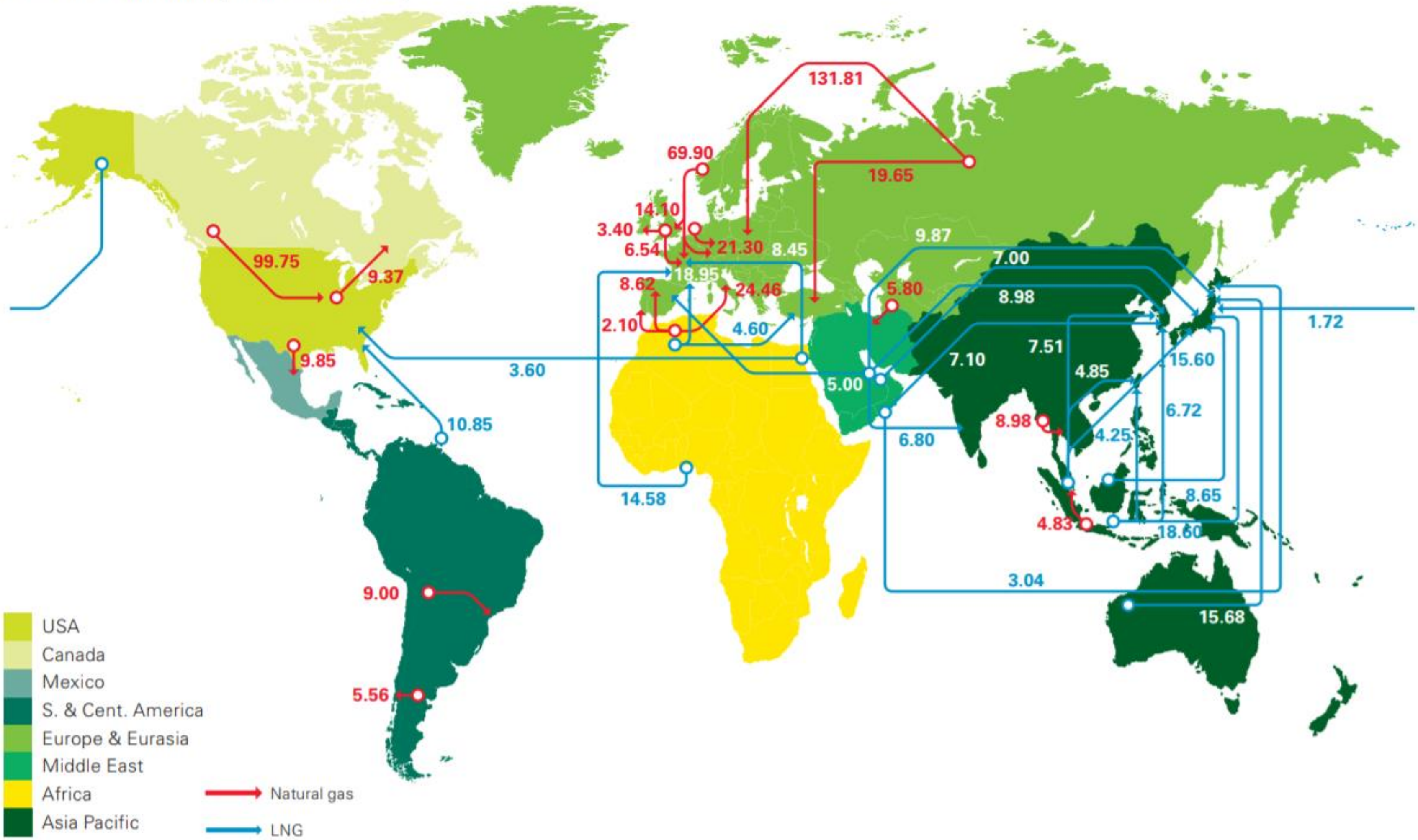




What interregional gas trade looked like 20 years ago (1996)

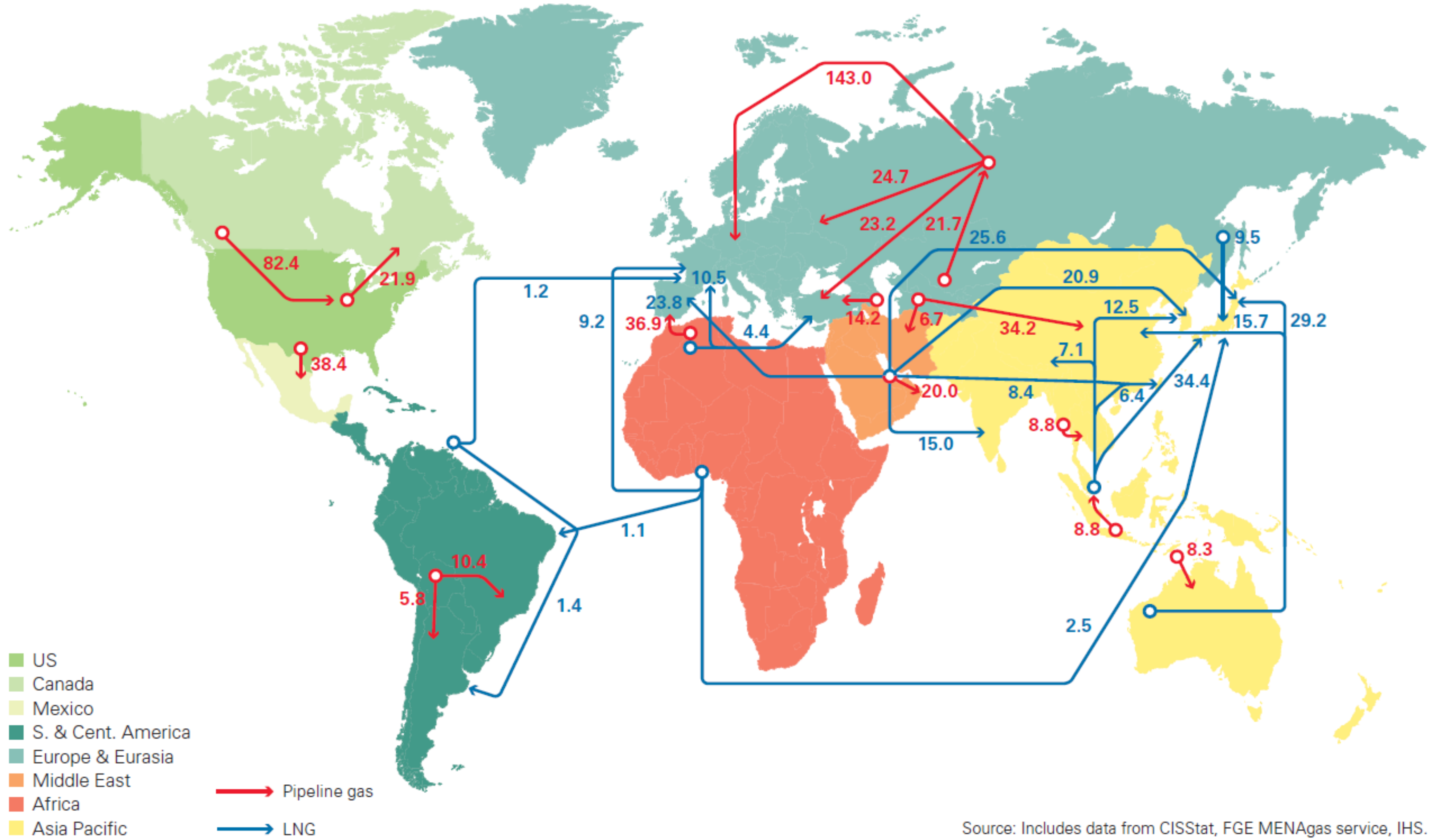
What interregional gas trade looked like 10 years ago (2006)

Major trade movements
Trade flows worldwide (billion cubic metres)



BP Statistical Review of World Energy

And what it looks like today (2016)



Source: Includes data from CISStat, FGE MENAgas service, IHS.

What the LNG industry looks like now*

BP Sonatrach JERA Toho Gas Tohoku Electric, NGC Trinidad NationalGrid Trafigura Jovo

Botas Total Beijing Gas Enagas Kuwait Petroleum Cheniere PTT

Petronas Vitol Uniper Novatek Guangzhou Gas Sempra Gunvor INPEX

Shell ADNOC Hokkaido Gas AES Southern LNG Pertamina

Hoegh LNG Gas Natural Fenosa GNL Chile BW ConocoPhillips Golar

Eni EGAS Chevron H Energy

Pakistan State Oil SLNG DEPA Toho Gas Excelerate GSPC

Tokyo Gas Fluxys LNG YPF PGNIG Egegaz Elengy

Statoil Gazprom BHP Kogas Mitsubishi

Chugoku Electric RWE Osaka Gas Santos ExxonMobil Anadarko

Samsung Woodside Sonangol Glencore PLN CPC QatarPetroleum

EDF SK Corp NNPC Vopak Pavillion Hunt Oil GAIL Huadian Corporation

Marathon Kansai Electric Ophir Mitsui Itochu Kinder Morgan

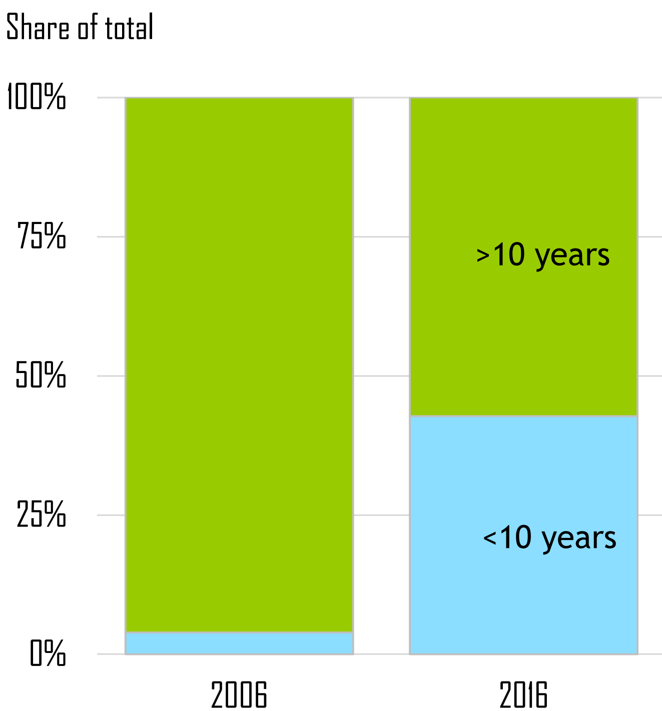
CNOOC Gasunie CNPC Polskie LNG

Indian Oil Engro Corp Repsol Sinopec Petronet

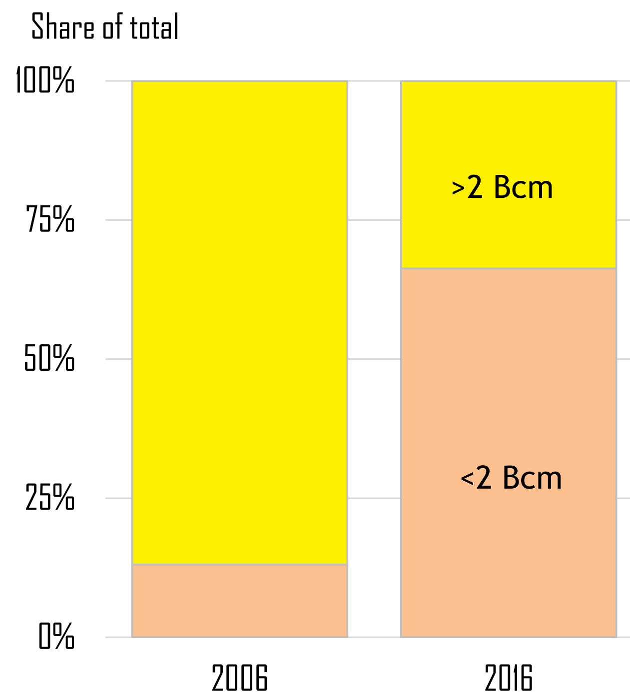
*List non exhaustive

LNG markets characteristics have changed

Contract length

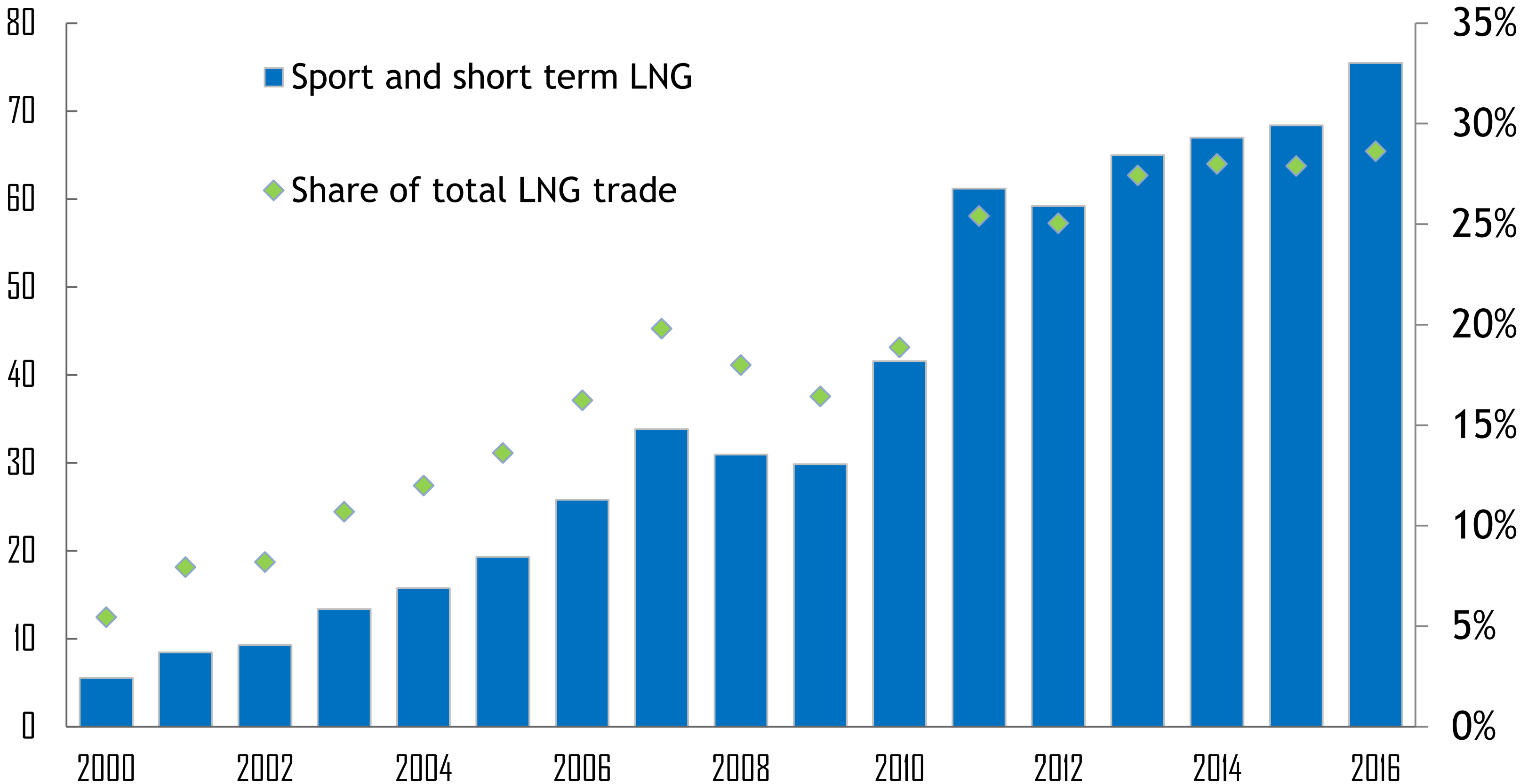


Contract size



Source: IHS, PIRA

As LNG trade becomes more flexible



Source GIIGNL annual reports
Short term LNG is defined as contracts of less than 4 years

Disclaimer

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