



**OIL
& GAS
CONFERENCE**

BILBAO
8-9/10/2018



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ADNOC

TRENDS AND COMPETITIVENESS IN OIL & GAS

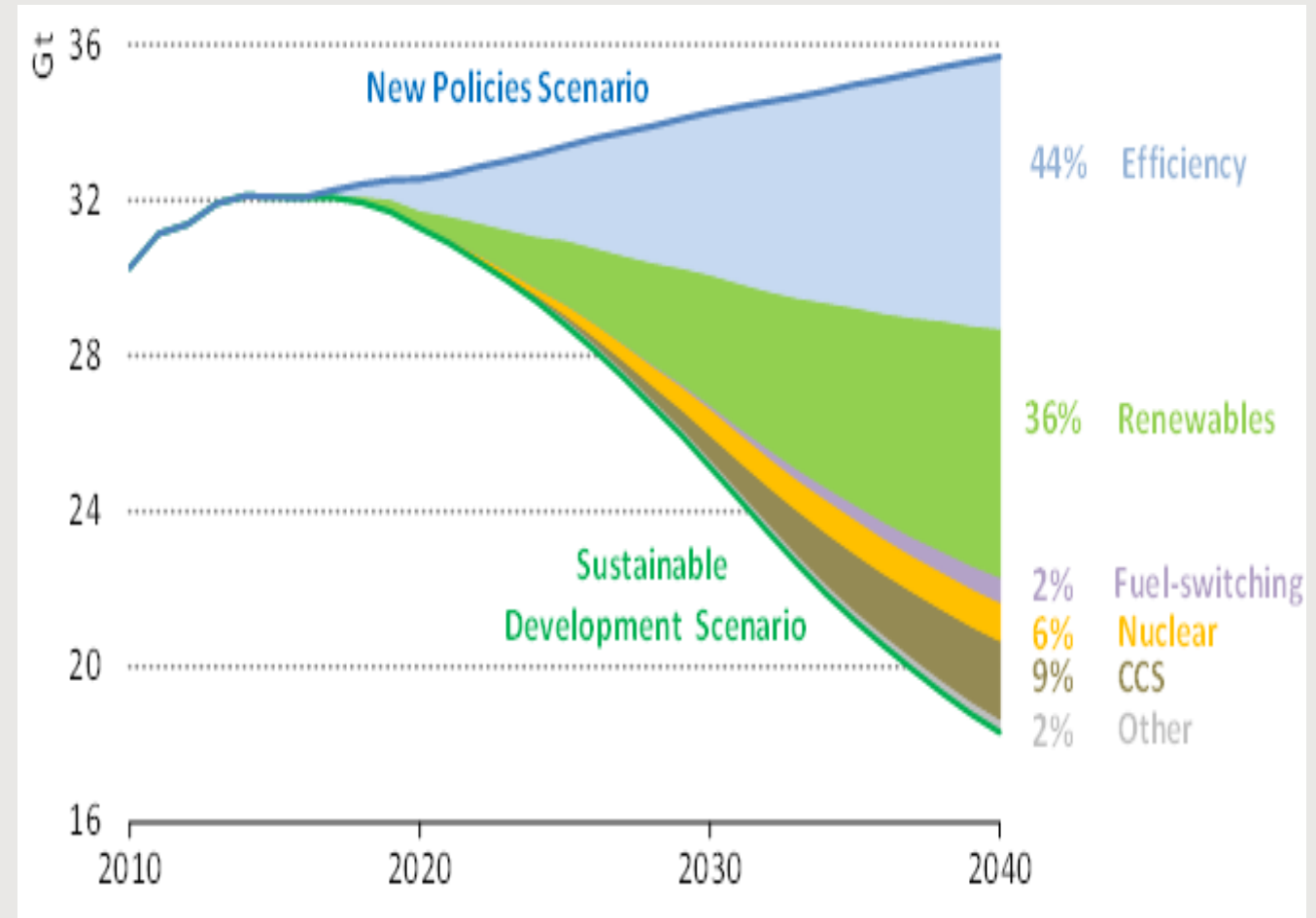
October 8th, 2018

Kamel Ben-Naceur

The Context

- The world's increasing energy needs to meet the United Nations' Sustainable Development Goals

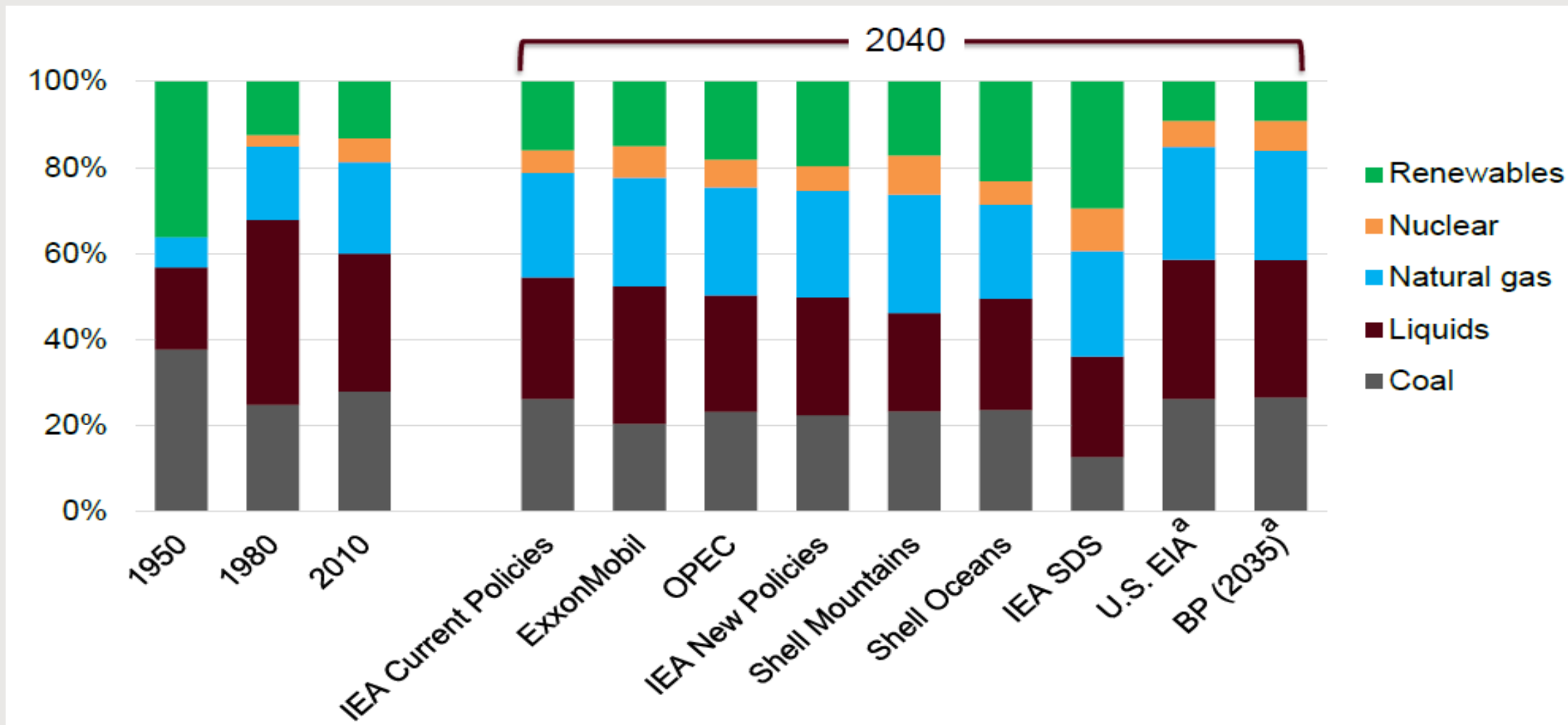
FOR A SUSTAINABLE ENERGY FUTURE, MULTIPLE TARGETS NEED TO BE MET



The Context

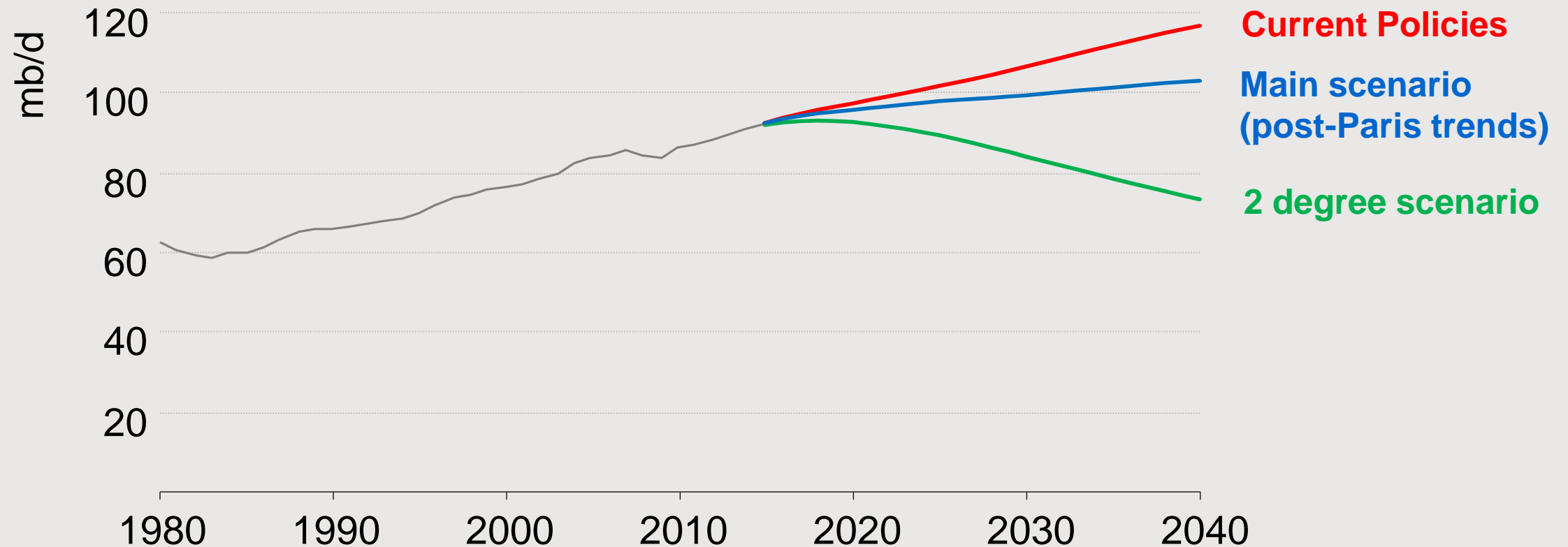
- The world's increasing energy needs to meet the United Nations' Sustainable Development Goals
- Oil & Gas remain a significant part of the energy mix ...

OIL AND GAS STILL REPRESENTING 50-60% OF ENERGY MIX BY 2040



Different pathways for oil

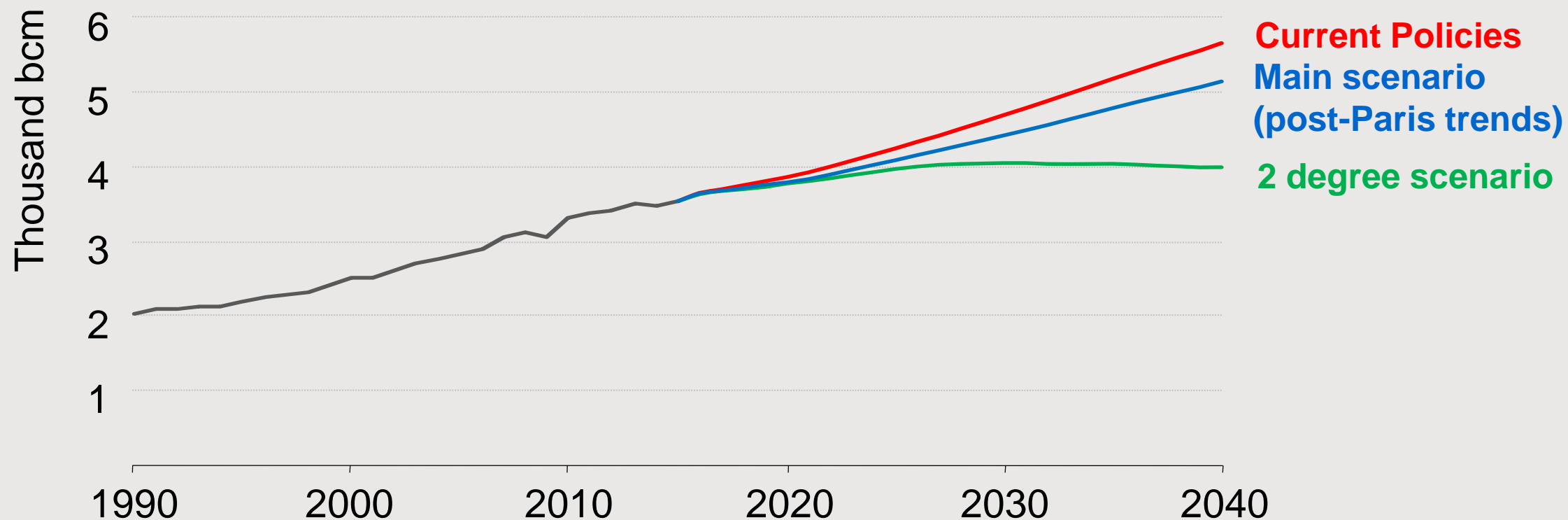
World oil demand by scenario



Source: IEA

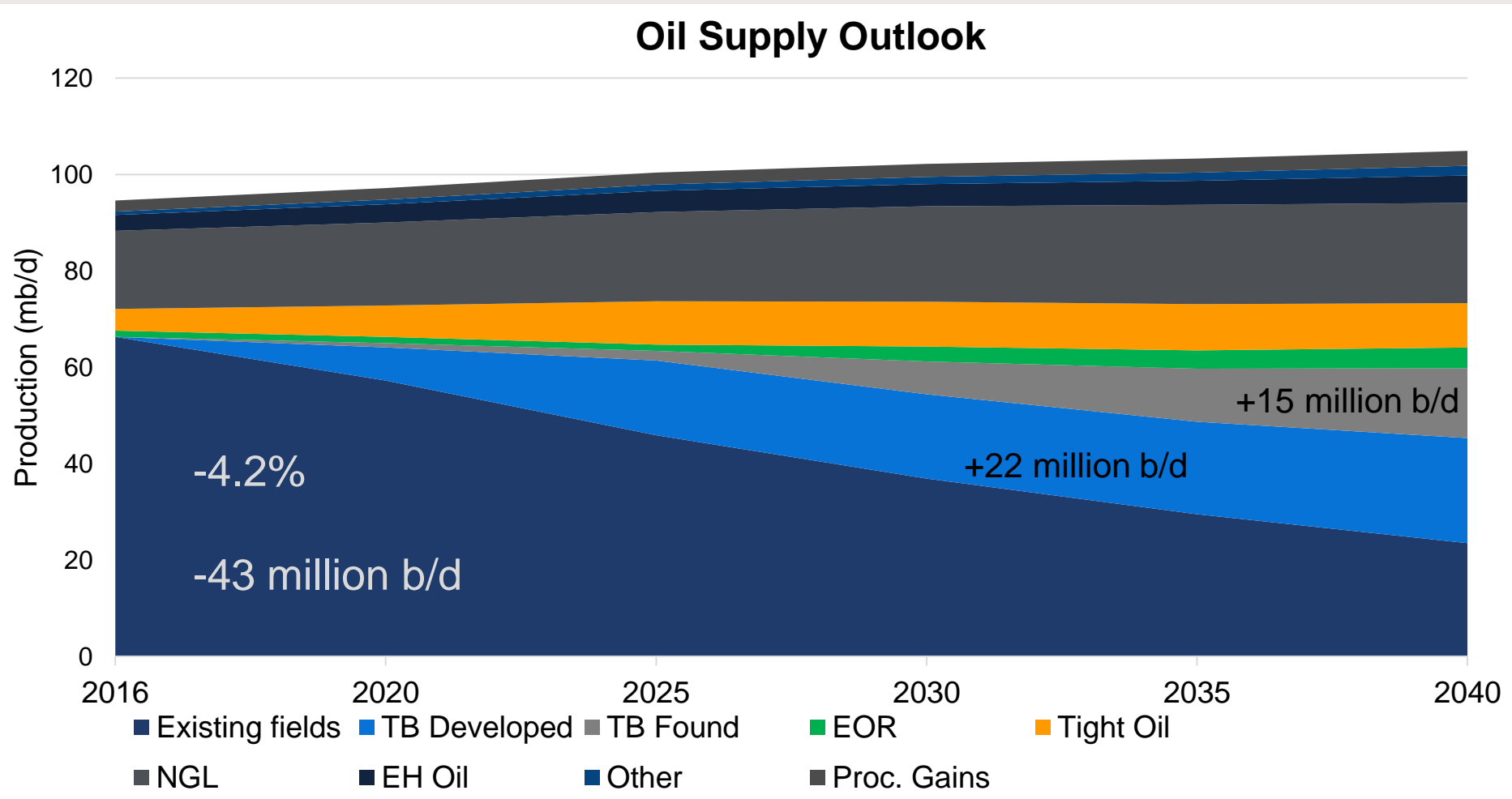
Natural gas rises in all scenarios

World natural gas demand by scenario



2040 Oil Supply Outlook

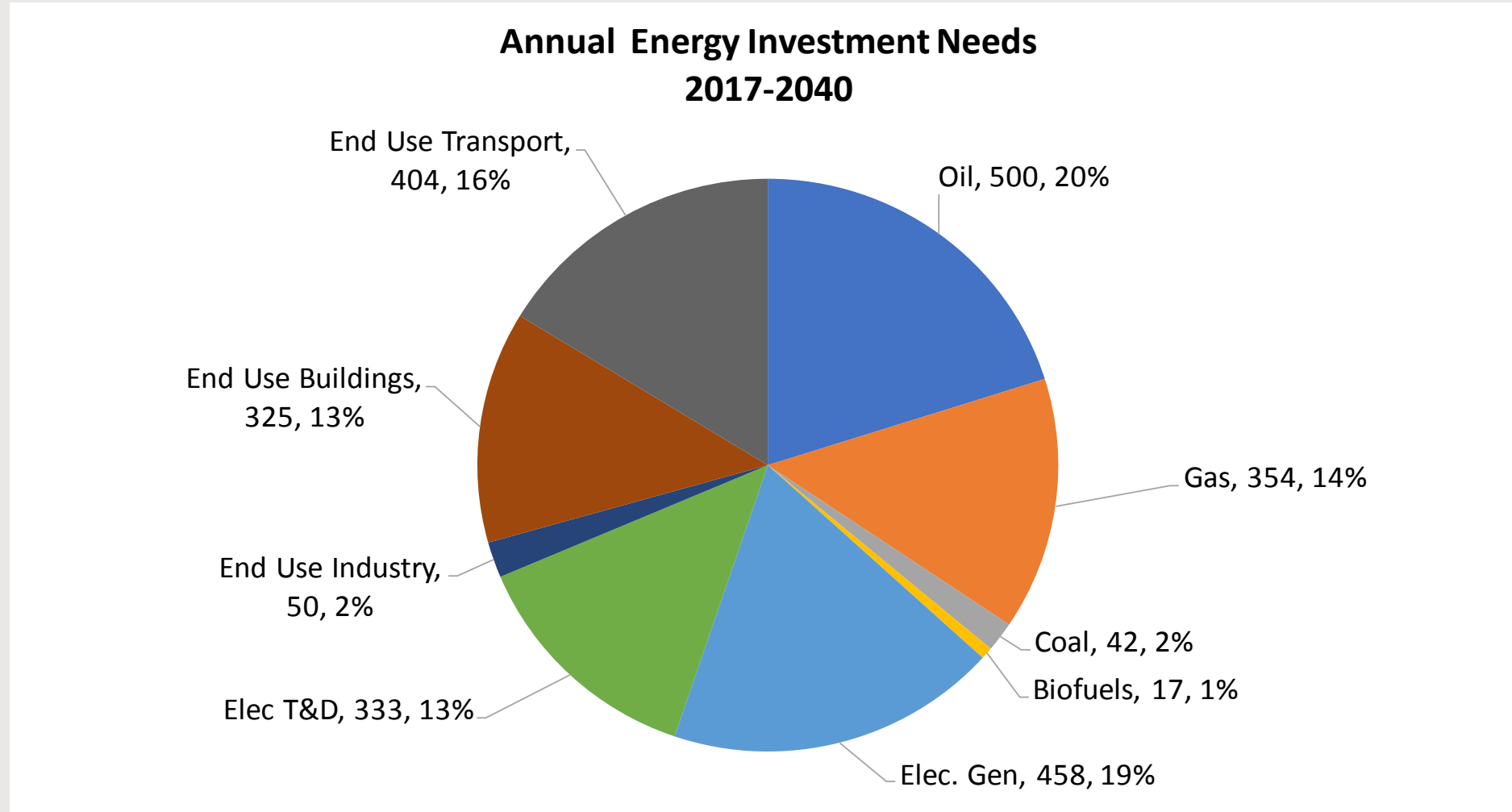
Need to compensate field decline



The Context

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- Oil & Gas remain a significant part of the energy mix ... and will require significant investment to meet demand

Energy Investment Needs (2017-2040)

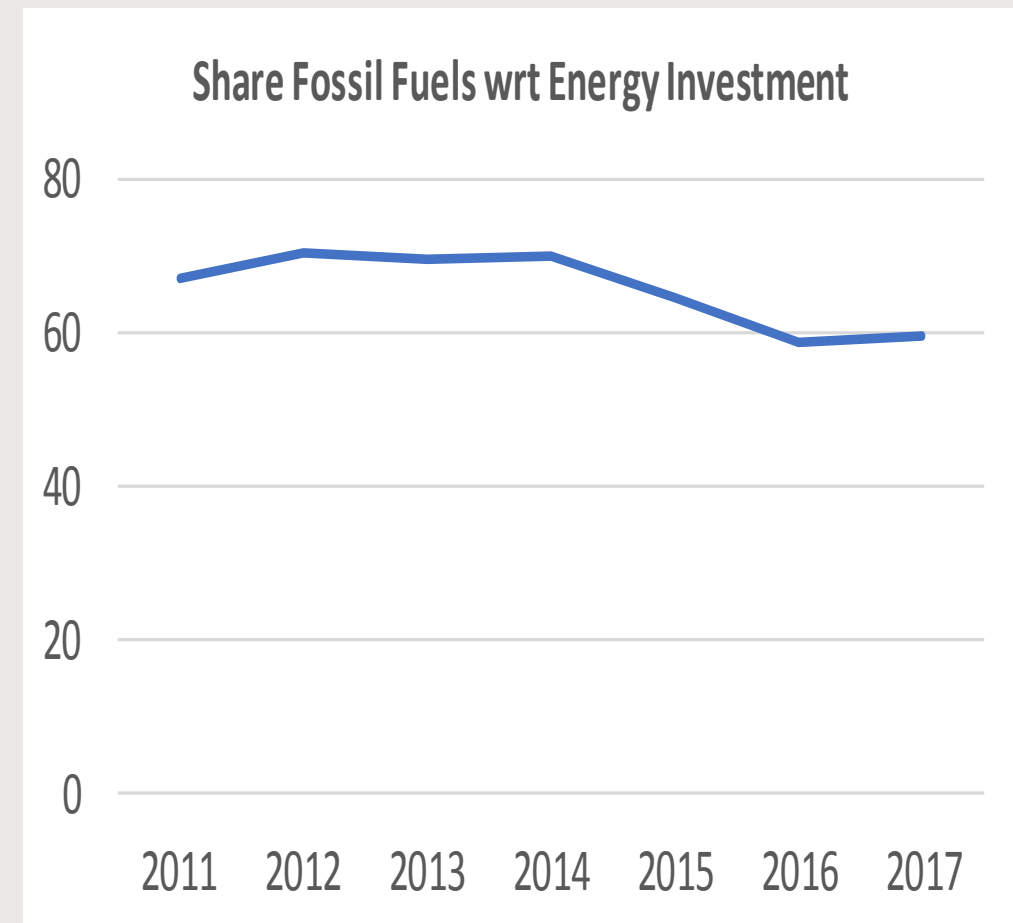
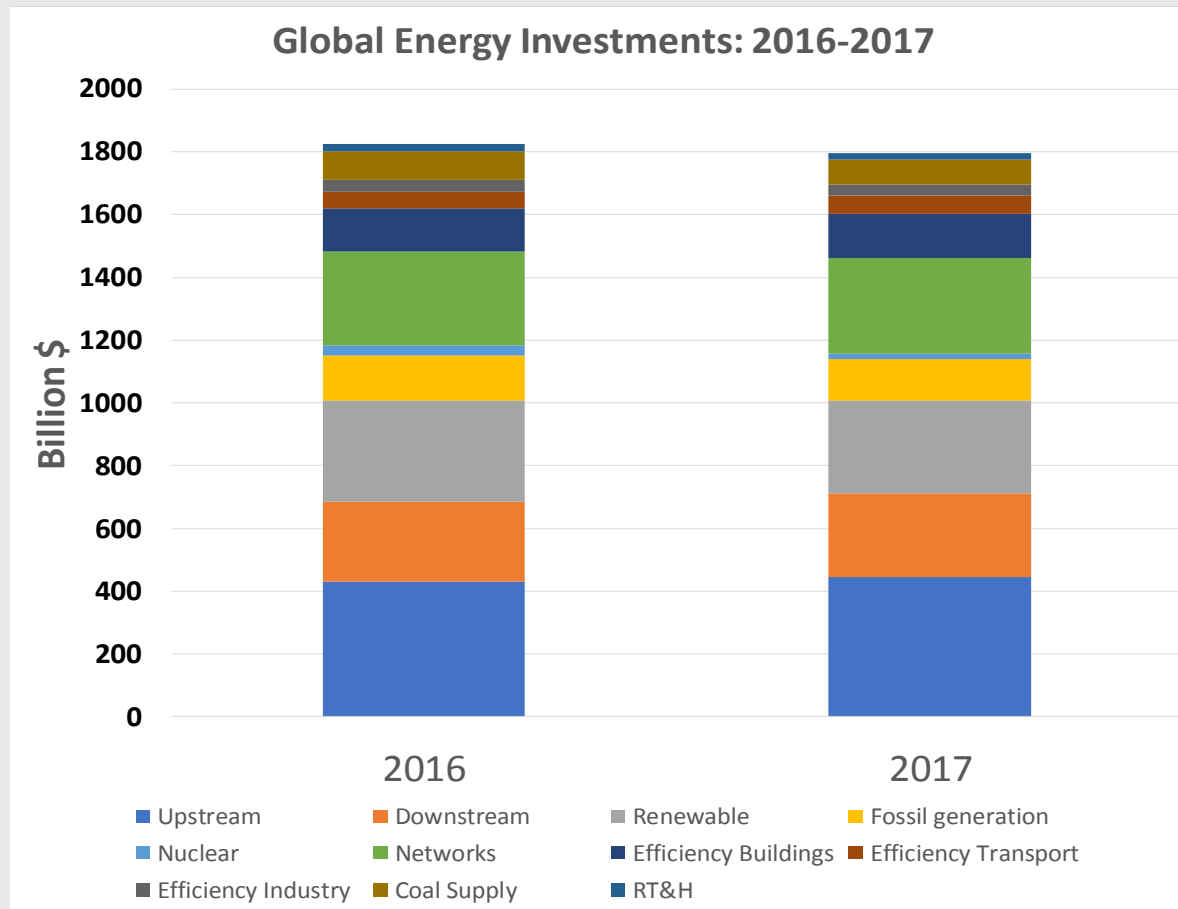


The world needs an average \$ 854 Billion investment in Oil & Gas vs \$ 2.5 Trillion for Global Energy

The Context

- The world's increasing energy needs to meet the United Nations' Sustainable Development Goals
- Oil & Gas remain a significant part of the energy mix ... and will require significant investment to meet demand
- Recent evolution of the Oil & Gas investment

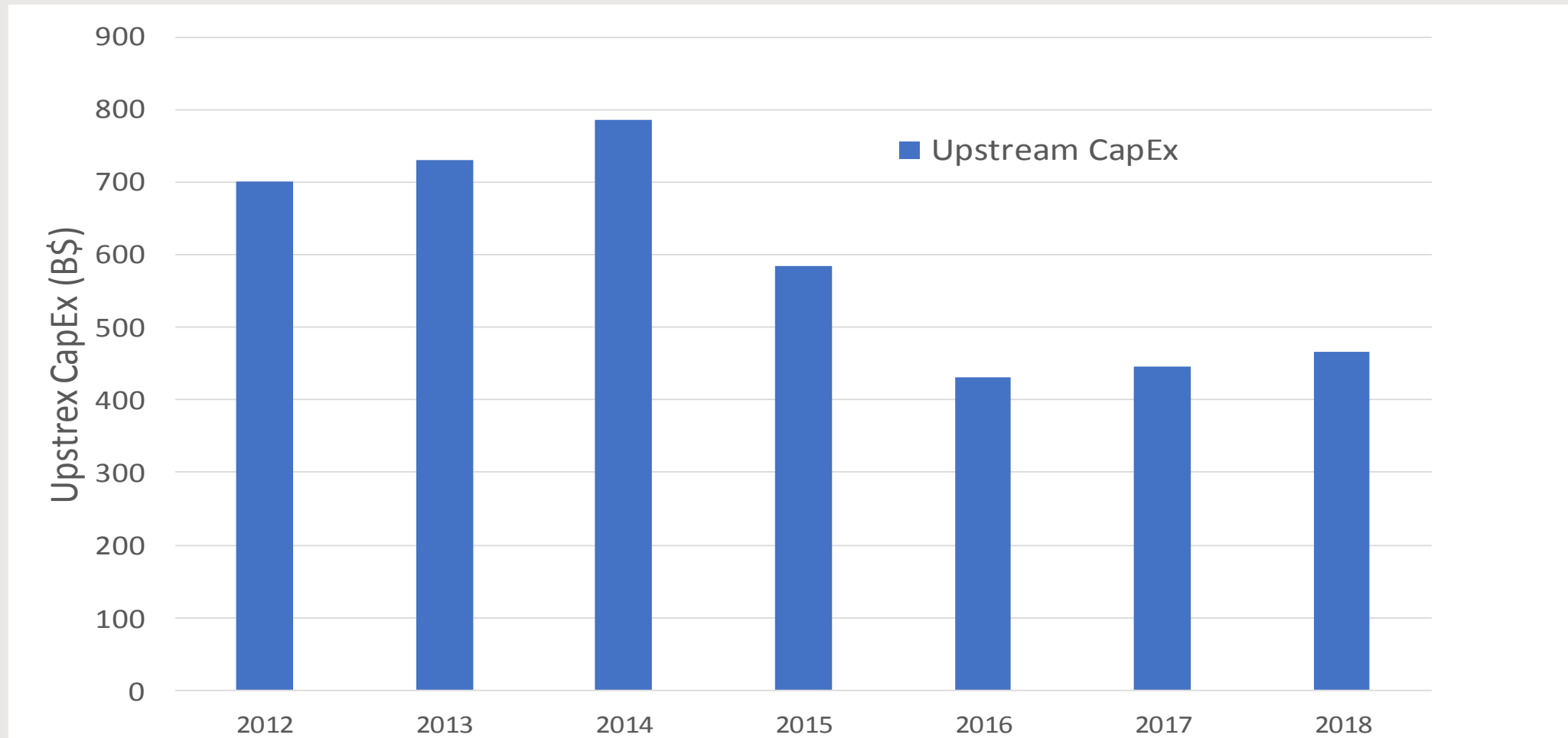
Recent Energy Investments & Fossil Fuels



Source: World Energy investment 2018

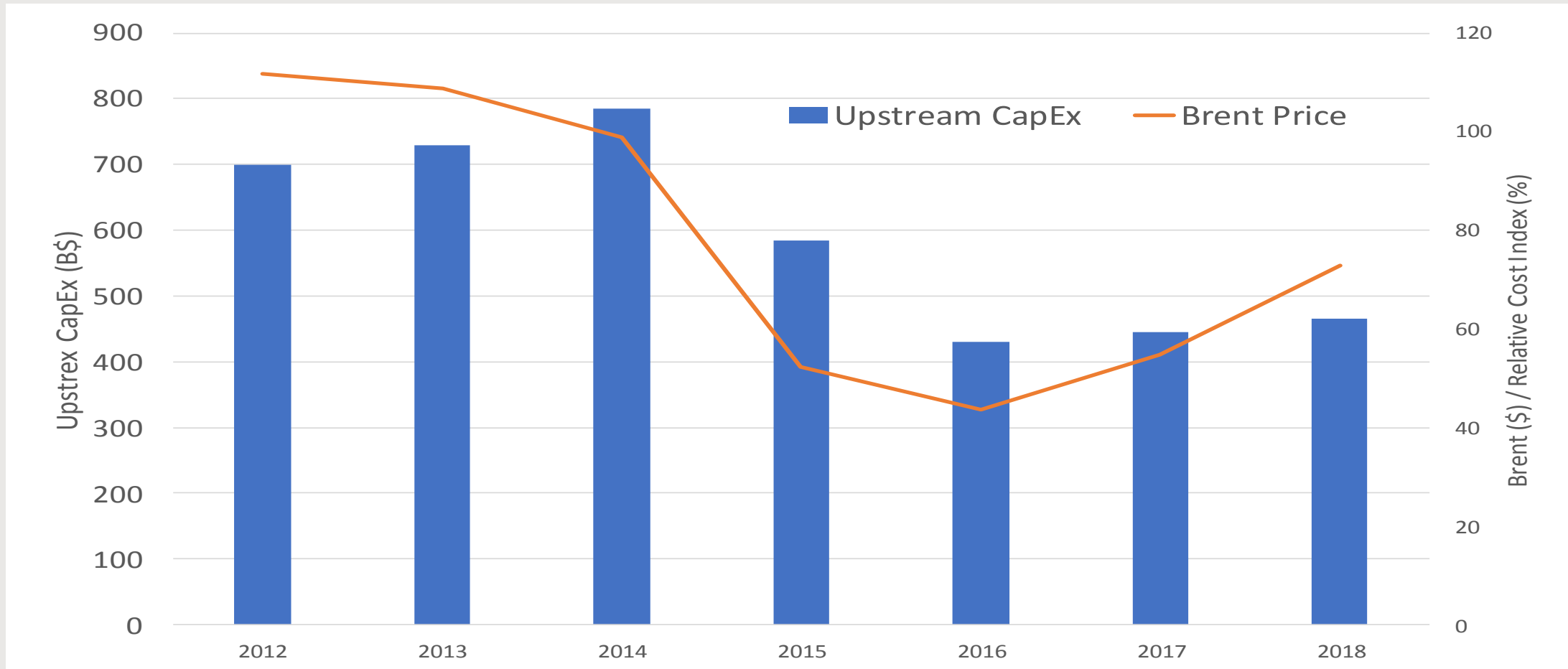
Major investment decline in the upstream oil and gas industry

Global upstream capital spending 2012-2018



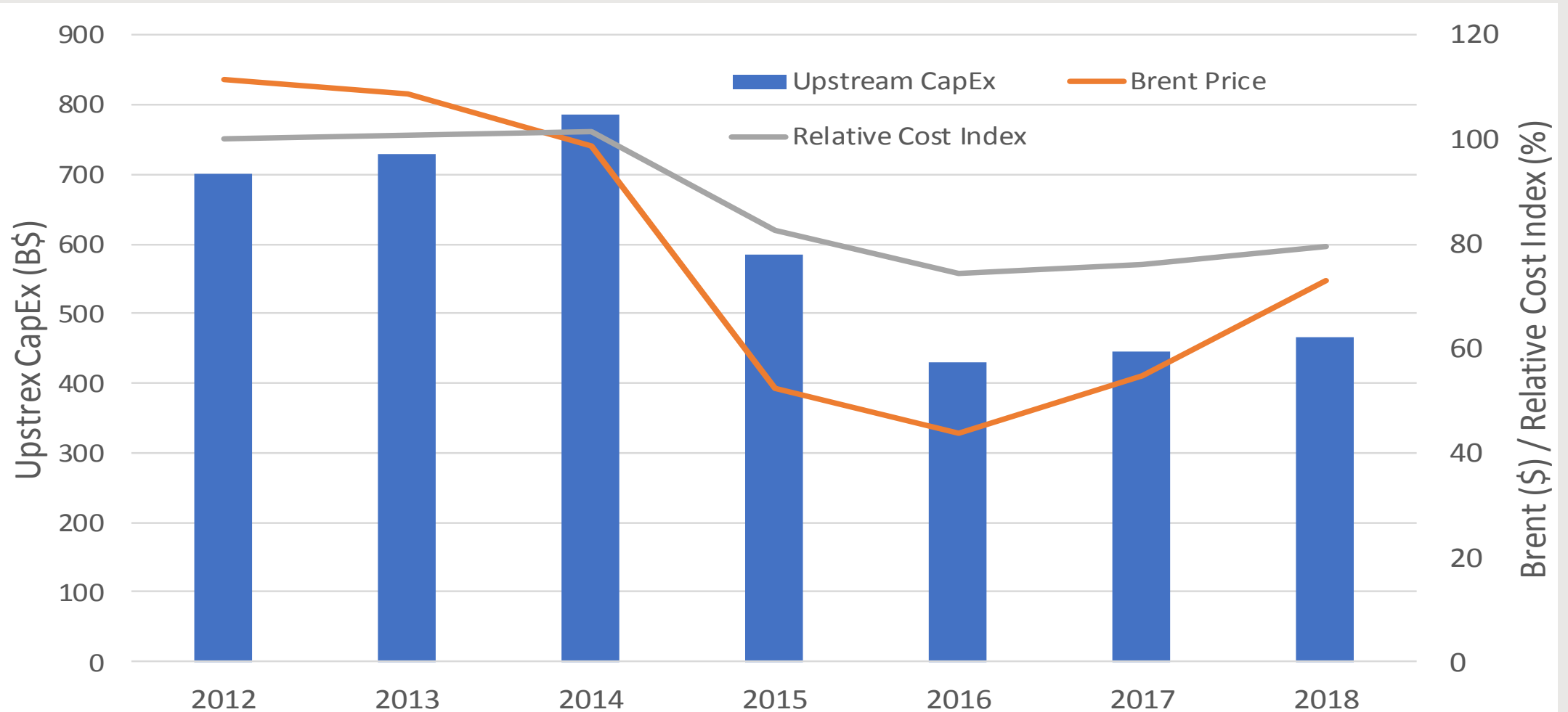
Major investment decline in the upstream oil and gas industry

Global upstream capital spending 2012-2018



Major investment decline in the upstream oil and gas industry

Global upstream capital spending 2012-2018

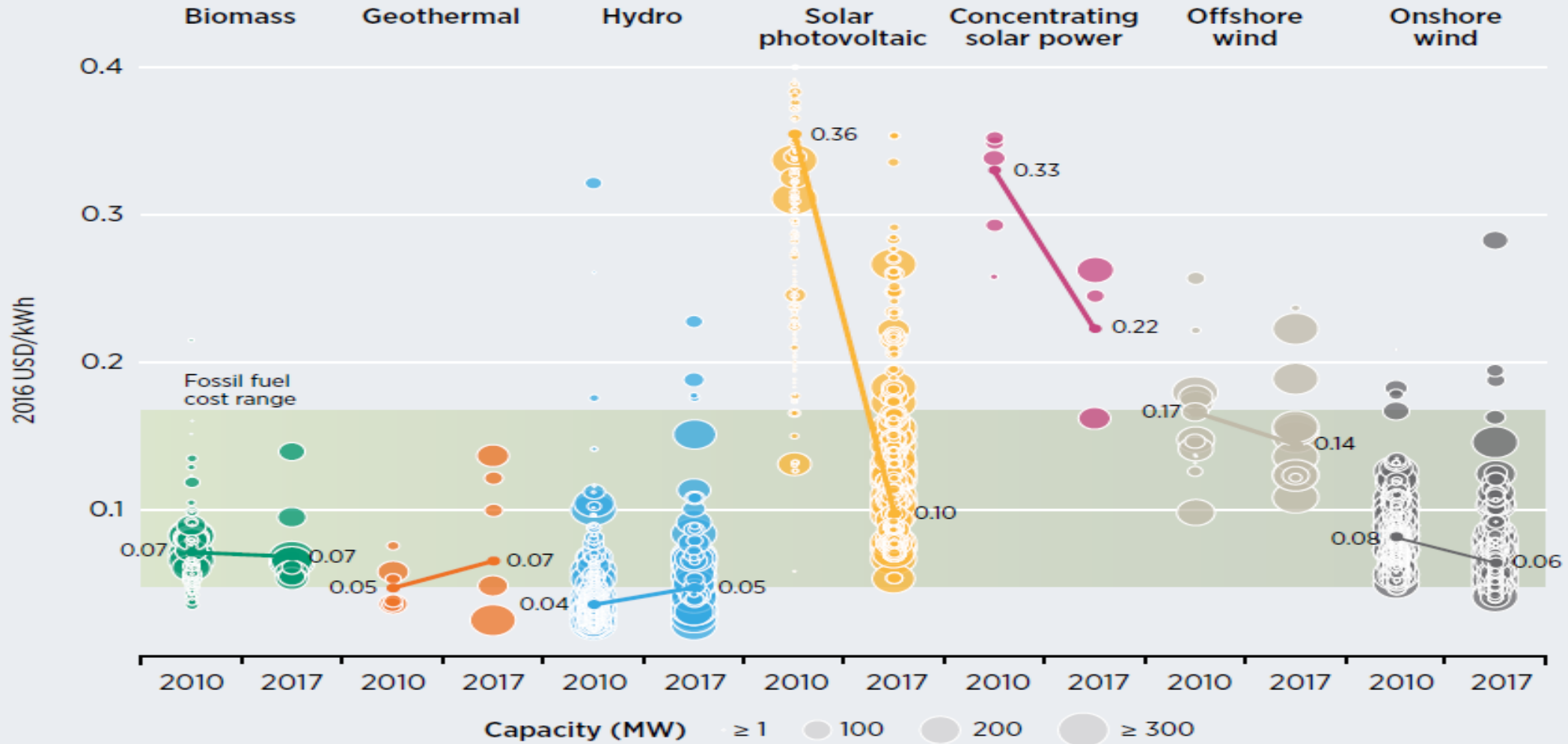


Source: IEA, IHS

The Context

- The world's increasing energy needs to meet the United Nations' Sustainable Development Goals
- Oil & Gas remain a significant part of the energy mix ... and will require significant investment to meet demand
- Recent evolution of the Oil & Gas investment
- Renewable energy costs have decreased significantly since the beginning of the decade

RENEWABLE POWER COSTS HAVE DECREASED

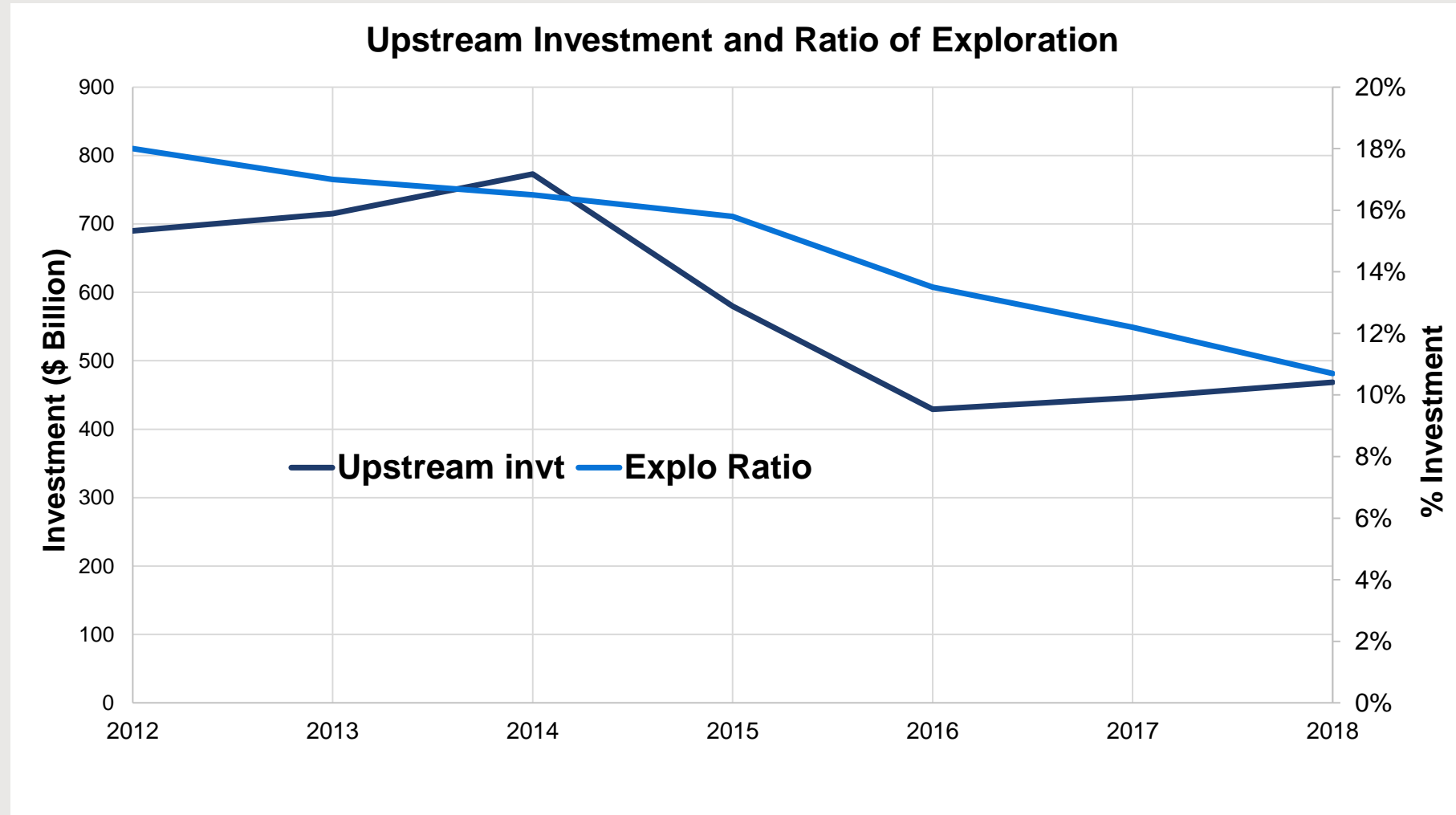


Source: IRENA (2018)

The Context

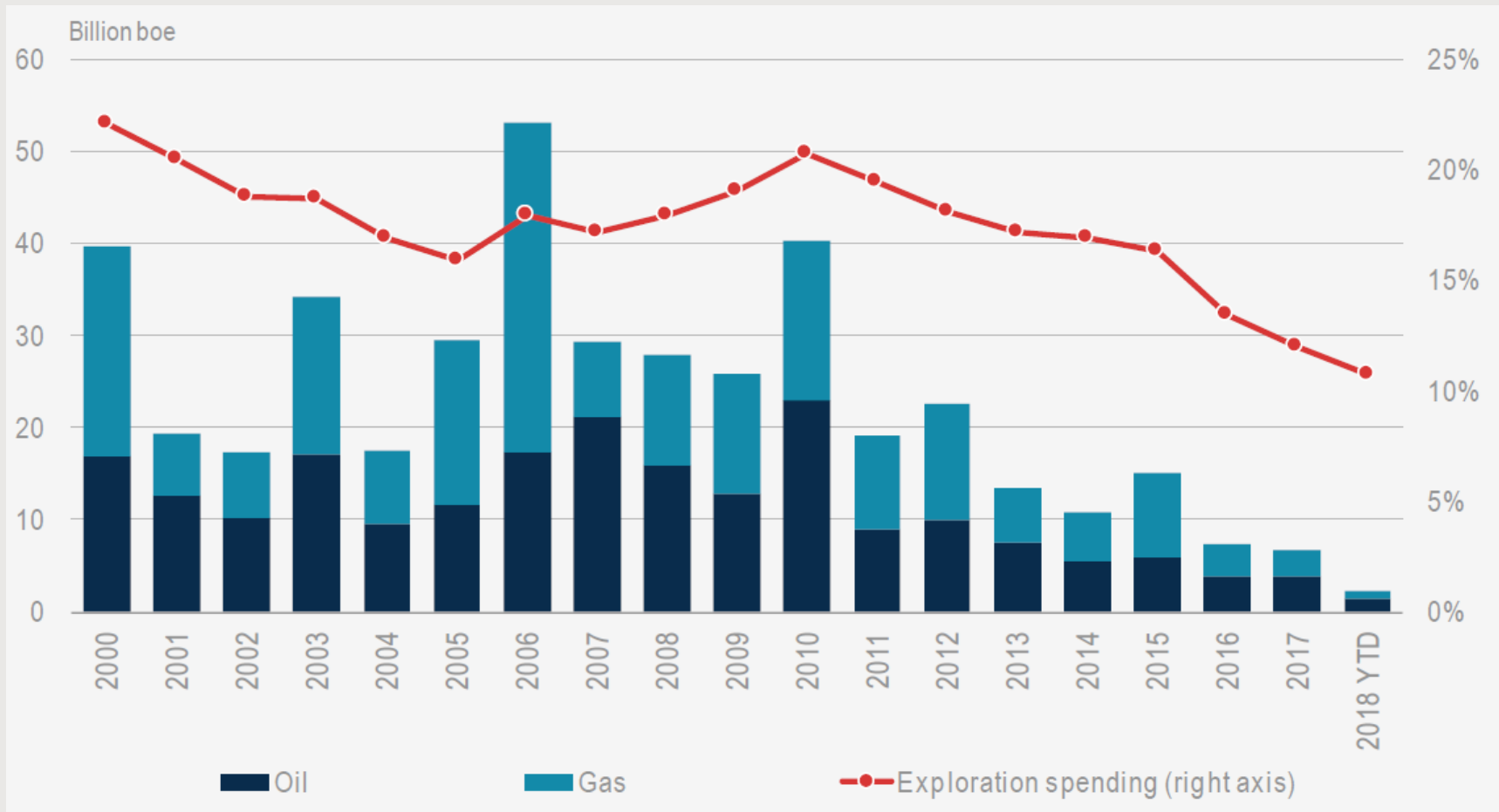
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- Recent evolution of the Oil & Gas investment
- Renewable energy costs have decreased significantly since the beginning of the decade
- Much more is needed to replace reserves

Is Global Upstream Investment Sufficient?



Source: IEA-WEI 2018

Oil & Gas Discoveries' Declining Volumes



Source: IEA_WEI 2018, Rystad

An agenda for the oil & gas industry



- Replace those barrels ...
- Increased use of technology to increase recovery and improve efficiency (digitalization ...)
- A reduced environmental footprint
 - Efficiency of operations
 - Methane emissions reduction
 - Carbon capture, utilization & storage, including EOR+
- Stress-testing strategies & business models against decarbonization scenarios
- Seek out opportunities to harness industry skills and expertise to the energy transition



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