



International
Energy Agency

Secure • Sustainable • Together

Energy Policies of IEA Countries

Global energy market trends

Sylvia Beyer

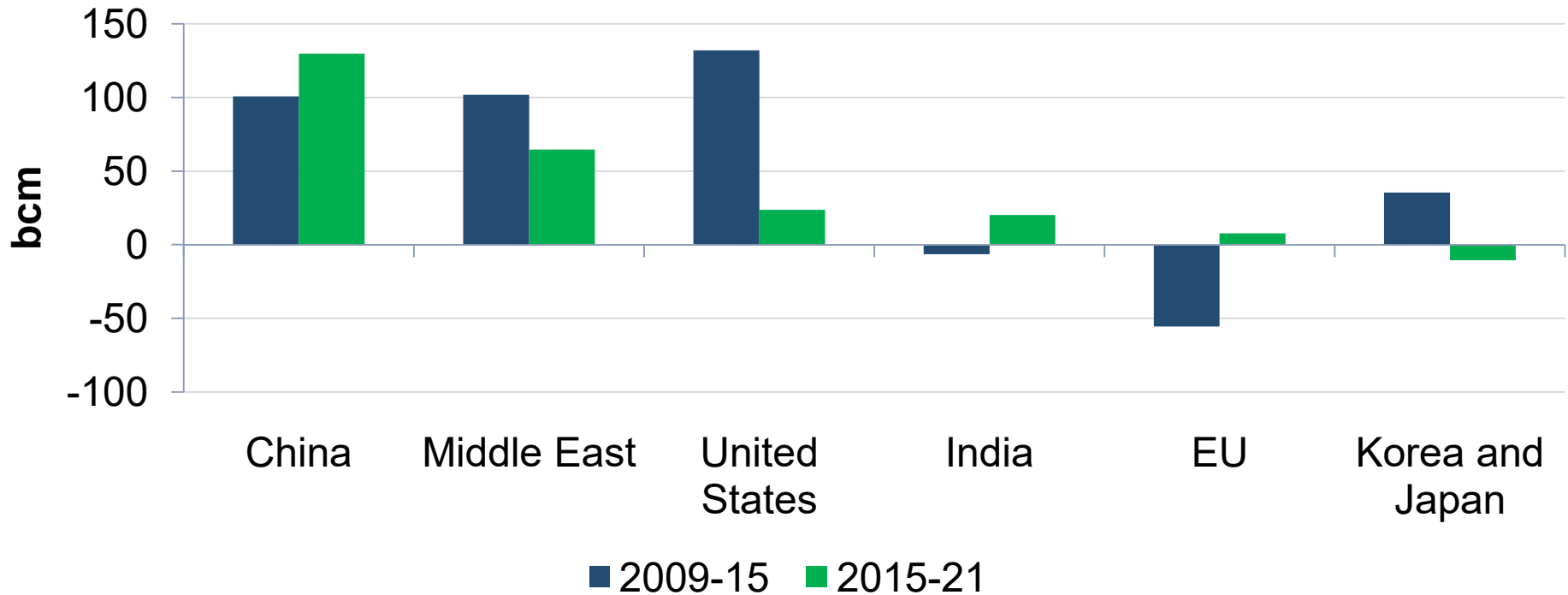
Desk officer, International Energy Agency

Athens, 25 October 2016

- **China & developing Asia drive global demand:** China's transition to a more diversified & less energy-intensive growth model impacts energy markets
- **The natural gas landscape is changing:** Ample low cost LNG supplies available for gas consumer markets – opportunity for competition and diversification
- **Low oil prices** bring gains to consumers, but can also sow the seeds of future risks to energy security and the energy transition due to lower investment
- **Paris Agreement:** the energy transition is underway, but not on track and governments need to ring-fence policies against market swings
- **Global energy efficiency:** energy savings are accelerating, despite low price environment, and are a central element in climate change responses.
- **Progress in innovation in solar PV and wind** technologies brings down costs.

China drives increase in global gas demand, as the United States takes a back seat

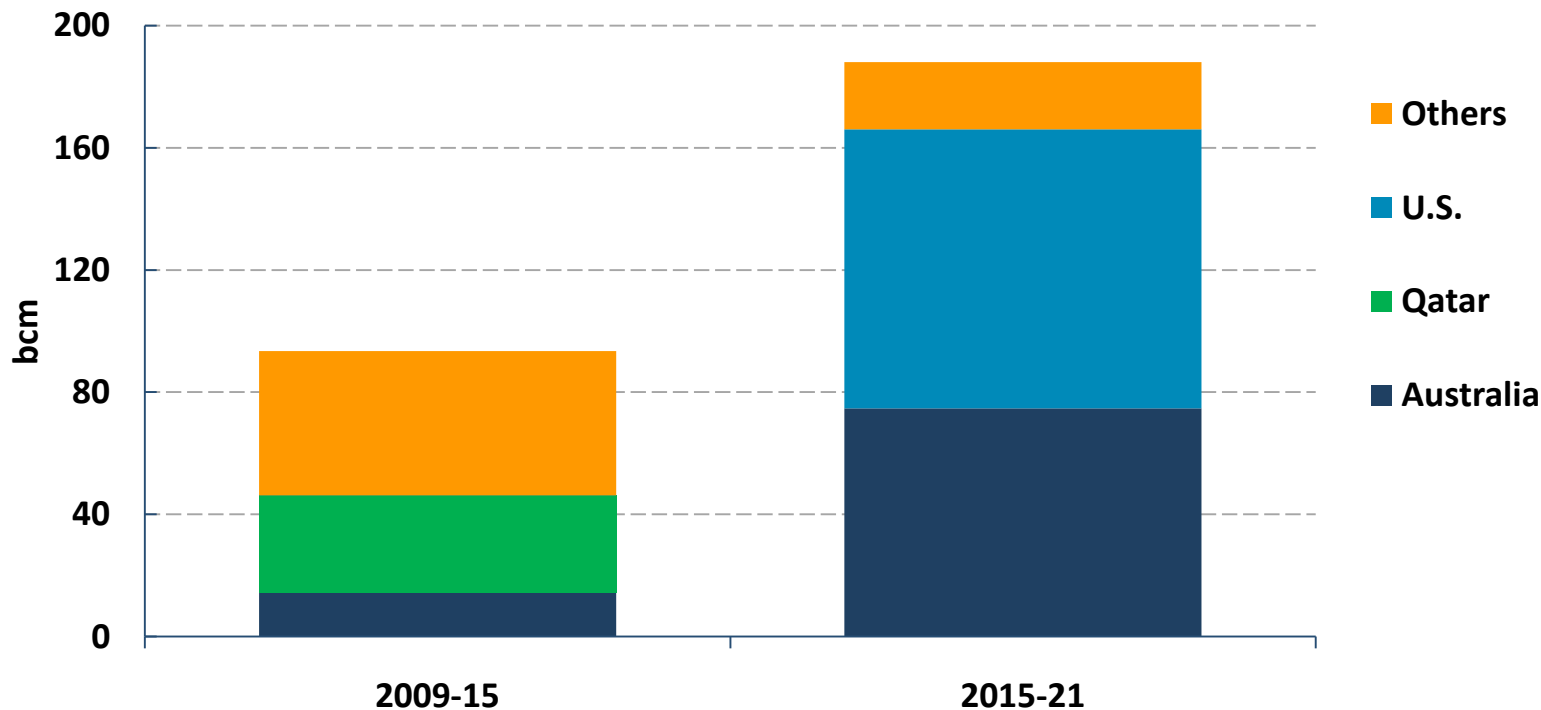
Change in natural gas demand by region (bcm)



***US gas demand growth slows sharply, driven by stagnation in the power sector;
EU gas demand gradually recovers on coal & nuclear power plant retirements***

Global LNG export capacity increases

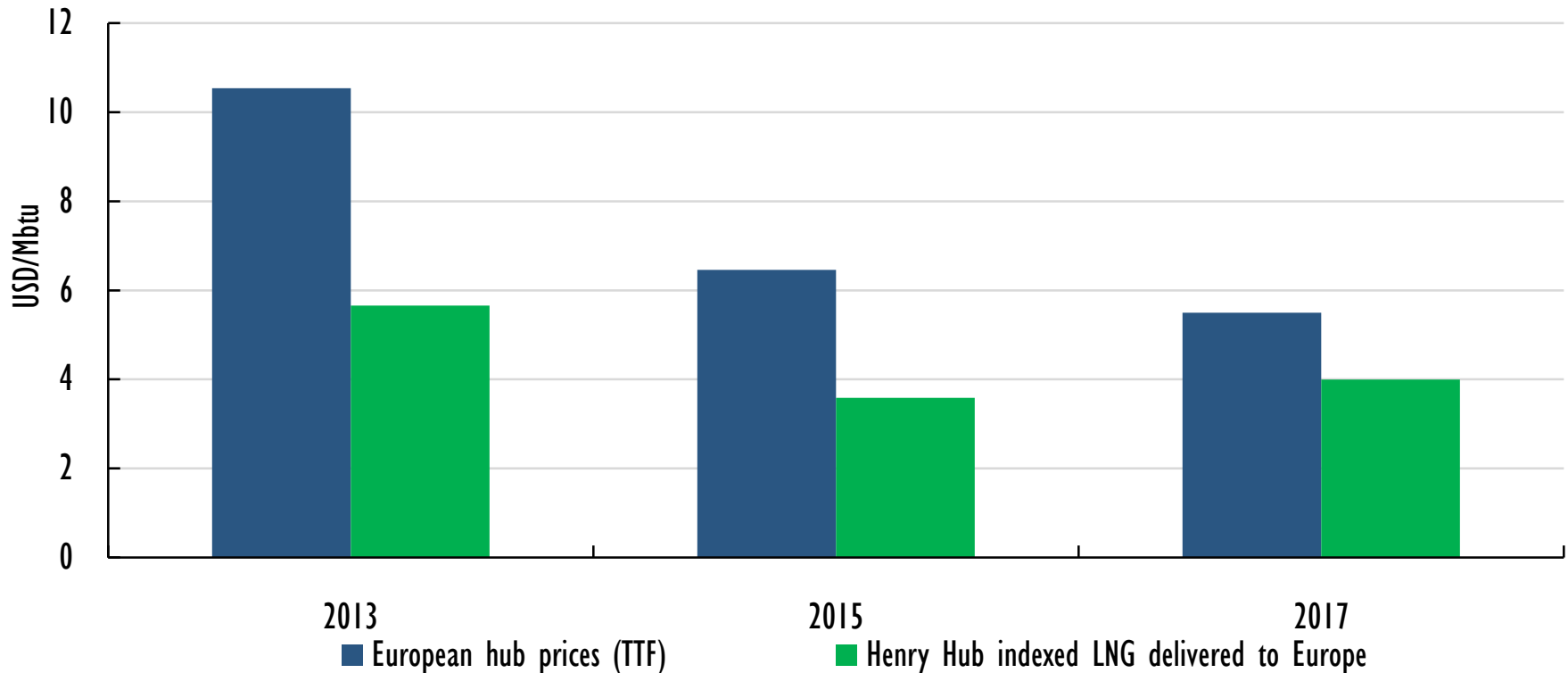
Liquefaction capacity additions



***LNG capacity additions will be led by the US & Australia over the next five years.
Growing opportunities for Europe to benefit from competitive prices.***

Greater competition is coming to the European gas market

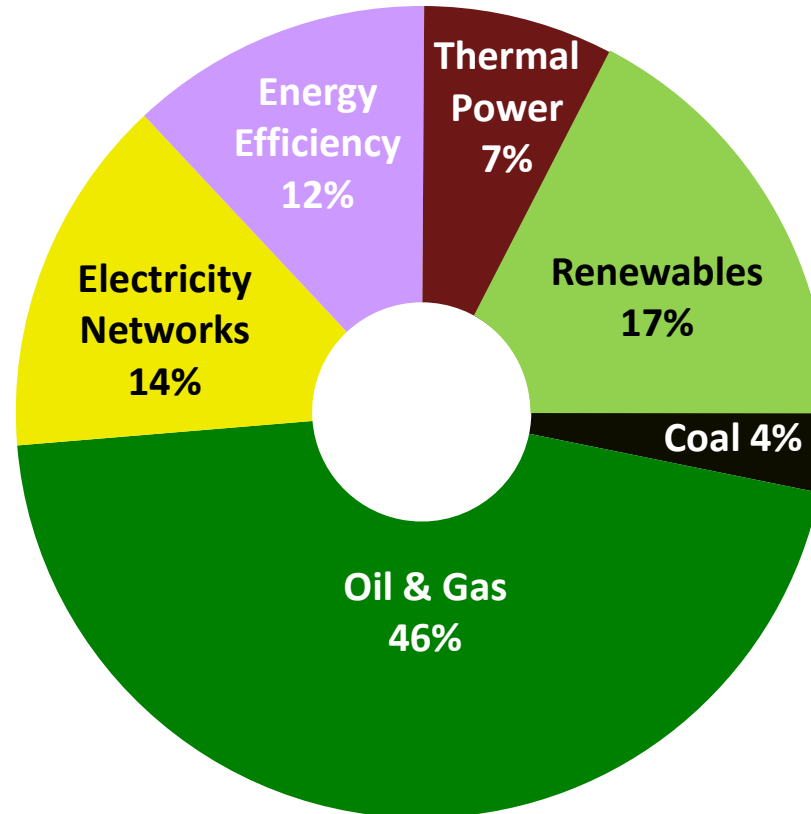
US LNG is competitive in Europe



Oversupply in global LNG markets will intensify competition; flexible US LNG volumes are well-placed to compete in Europe

Investment flows signal a reorientation of the global energy system

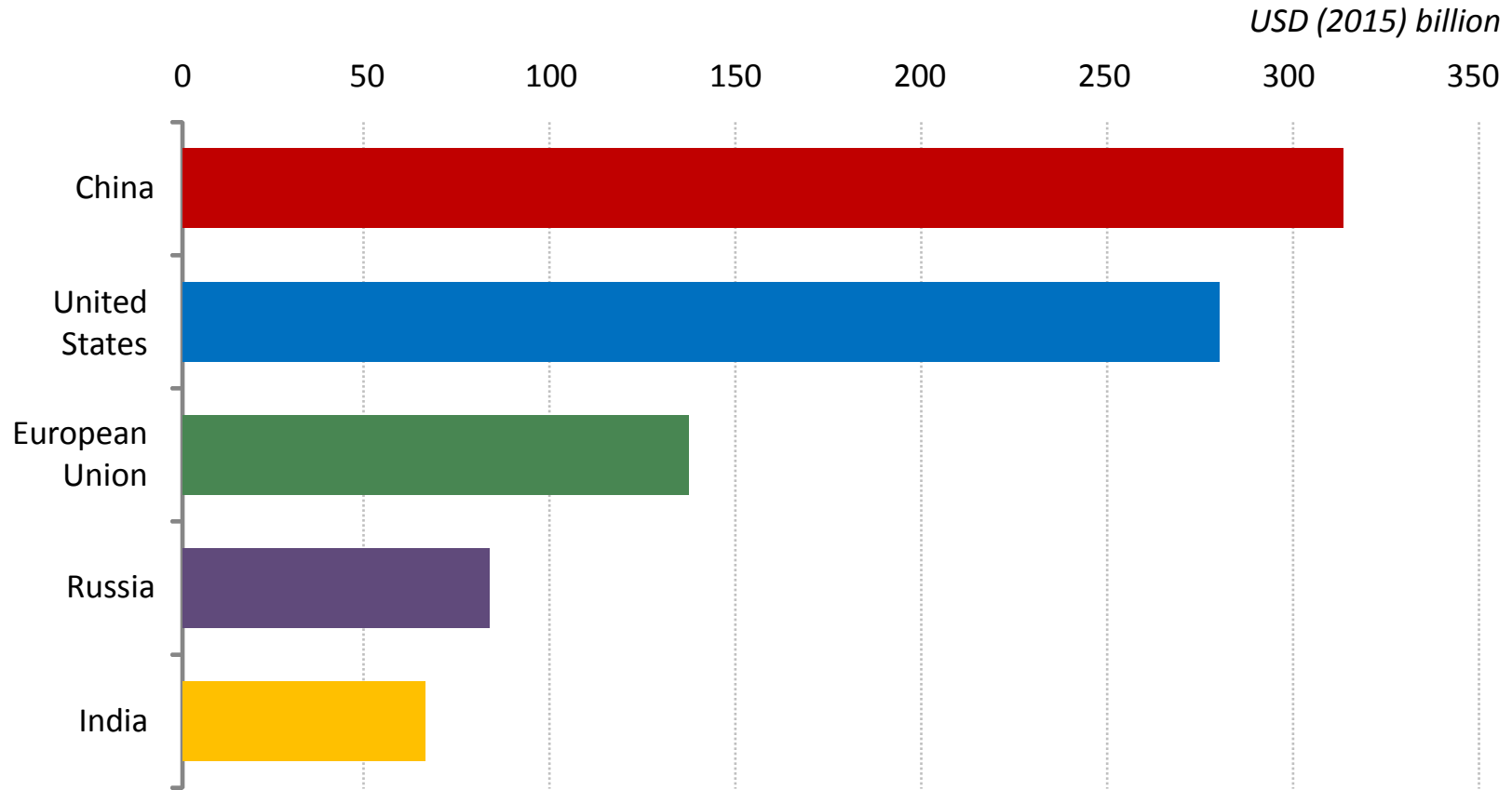
Global Energy Investment, 2015: USD 1.8 trillion



An 8% reduction in 2015 global energy investment results from a \$200 billion decline in fossil fuels, while the share of renewables, networks and efficiency expands

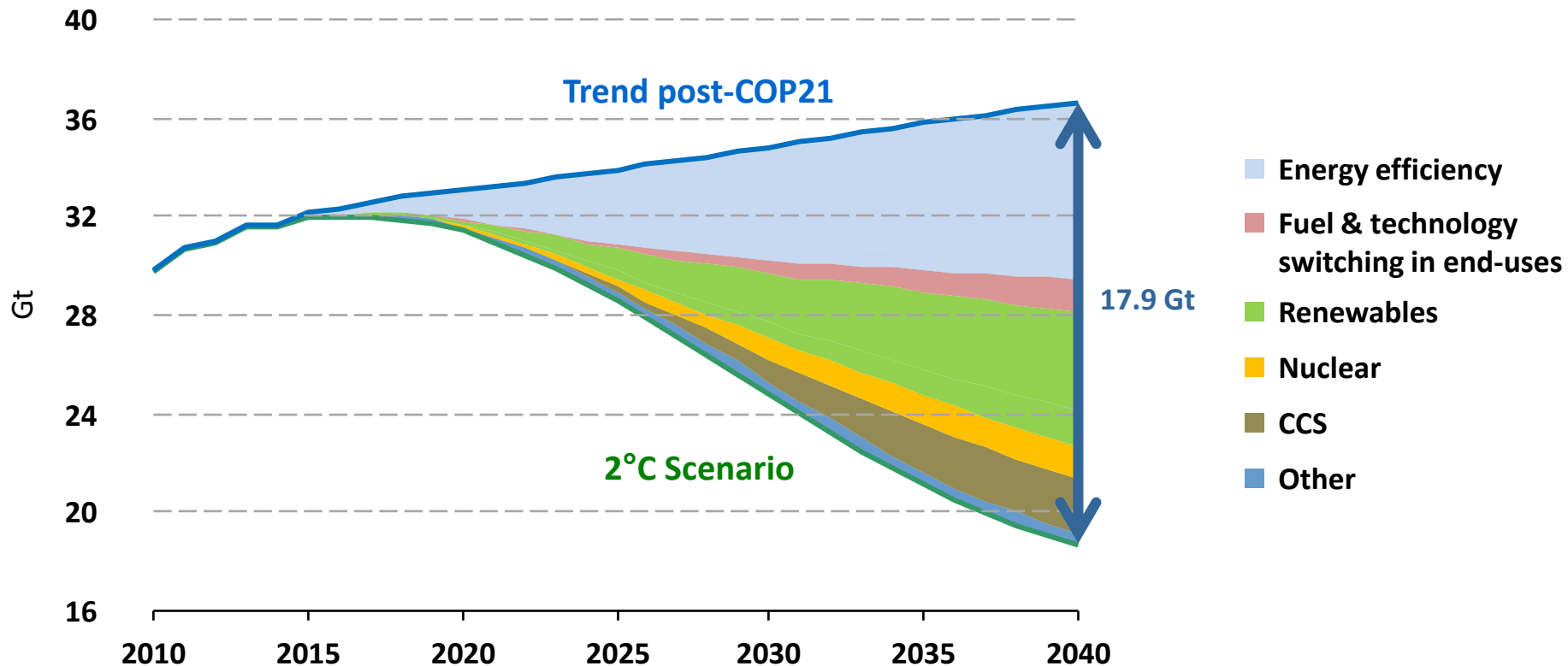
Top five markets comprised over half of global energy supply investment

Energy supply investment in 2015, selected markets



Boosted by record power sector spending, China regains its position as top investment market, while the US declines due to sharply lower oil and gas investment

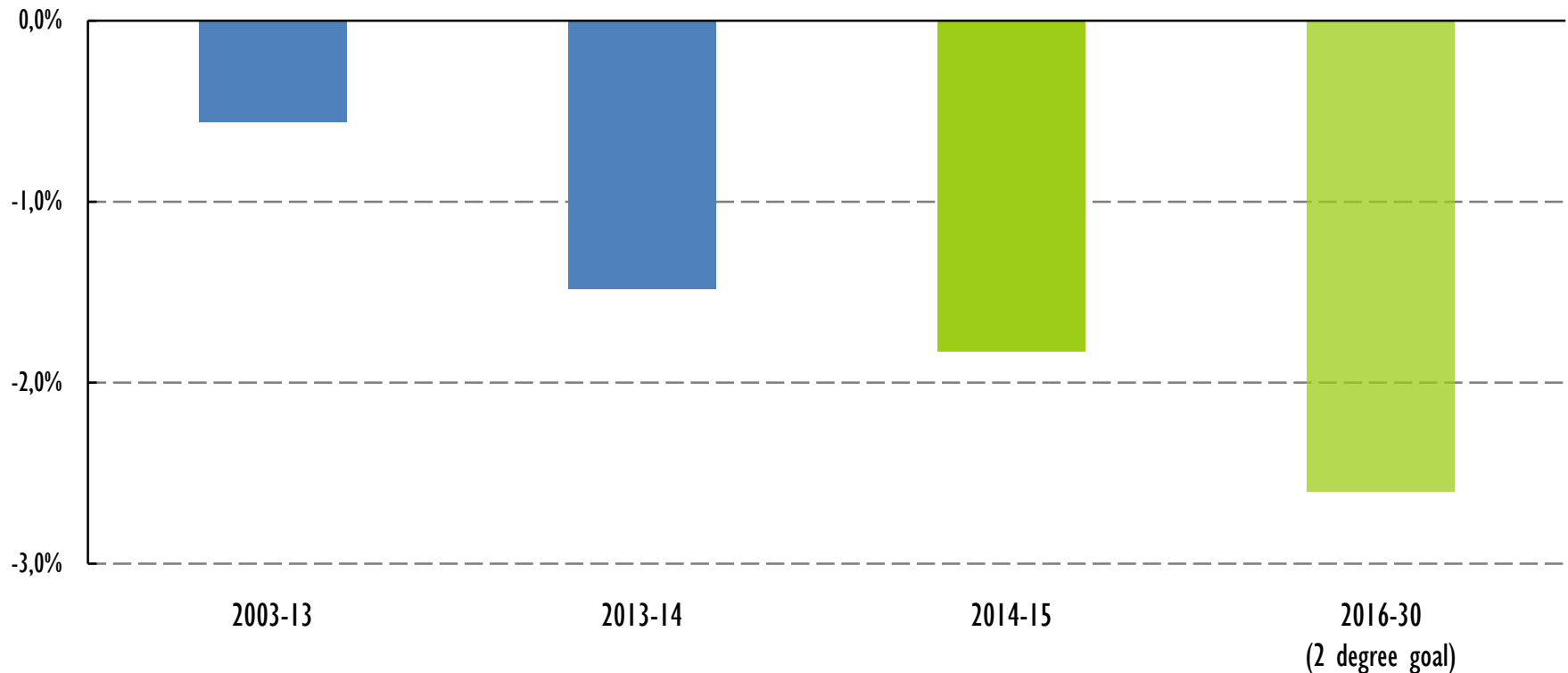
Greater efforts are still needed to reach a 2°C pathway



Energy efficiency & renewables account for the bulk of the additional emission reductions required for a 2°C pathway, but all forms of clean energies are needed

Energy intensity is improving but not fast enough

Global annual energy intensity gains



In 2015, global intensity improved by three times the average of the last decade, despite a low price environment. Intensity gains need to increase to 2.6% to achieve our climate goals.

Technology cost and prices are coming down

Recent announced long-term contract prices for new renewable power to be commissioned over 2016-2019

Onshore wind

Utility-scale solar PV

United States
USD 47/MWh

Canada
USD 62-66/MWh

United States
USD 65-70/MWh

Mexico
USD 55/MWh

Mexico
USD 45/MWh

Brazil
USD 49/MWh

Brazil
USD 75-81/MWh

Chile
USD 30/MWh

Uruguay
USD 90/MWh

Morocco
USD 30-35/MWh

Germany
USD 67-100/MWh

Germany
USD 87 /MWh

Turkey
USD 73/MWh

China
USD 80-91/MWh

India
USD 55-94/MWh

Jordan
USD 61-77/MWh

United Arab Emirates
USD 30/MWh

Australia
USD 69/MWh

South Africa
USD 51/MWh

South Africa
USD 65/MWh

Egypt
USD 41-50/MWh

This map is without prejudice to the status or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area

Note: Values reported in nominal USD includes preferred bidders, PPAs or FITs. US values are calculated excluding tax credits. Delivery date and costs may be different than those reported at the time of the auction.

Best results occur where price competition, long-term contracts and good resource availability are combined



International
Energy Agency

Secure • Sustainable • Together

Thank you for your attention.

www.iea.org