



Gas Market Report 2017

Center on Global Energy Policy, Columbia/SIPA
Columbia Club, 13 July 2017



❑ **The contribution of gas**

- Versatile fuel within the energy system, helping to address environmental concerns
- In 2016 gas became the leading power generation source in the US

❑ **An abundant fuel, but strong competitive pressures, especially in Asia**

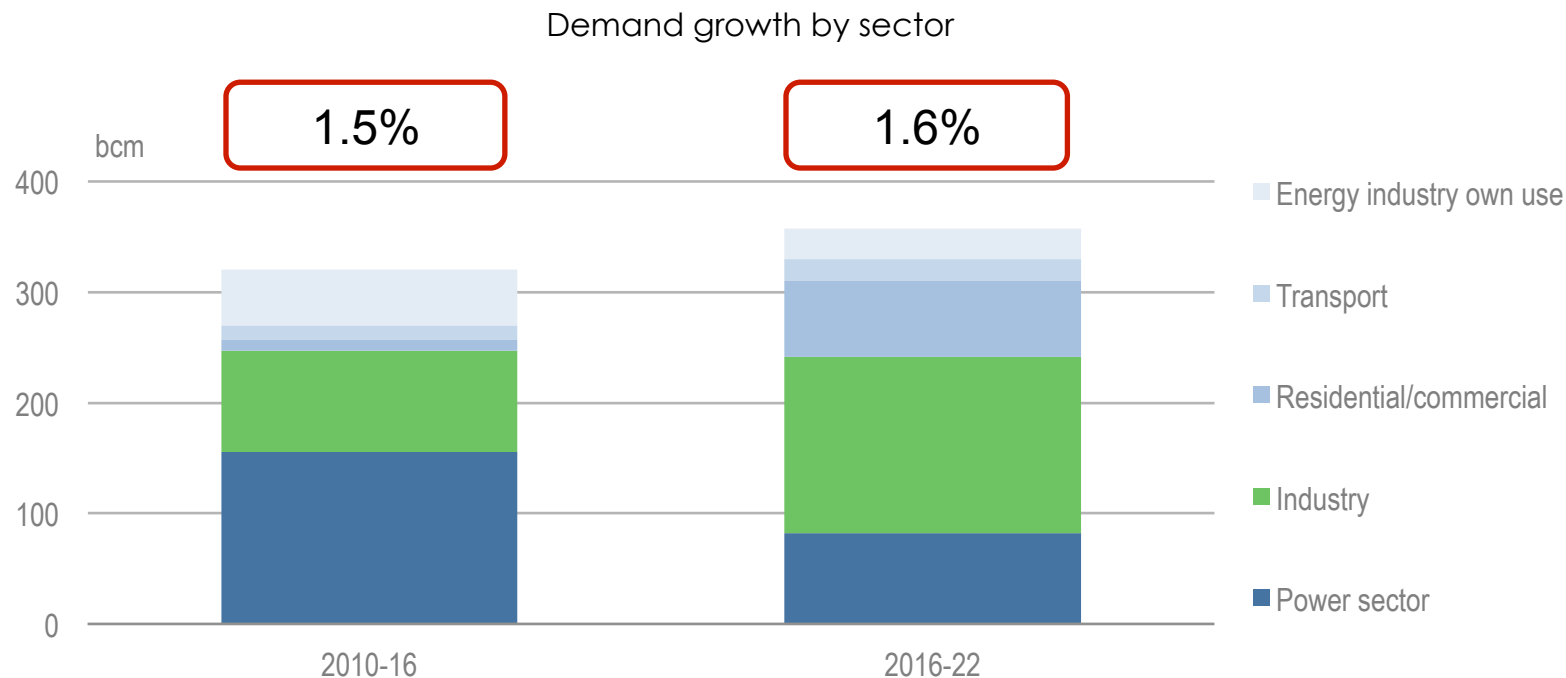
- Space for gas squeezed between renewables and coal in some markets

❑ **A second natural gas revolution is underway, this time caused by LNG**

- A new surge in LNG export capacity is helping unconventional gas go global
- Low prices continue, bringing new LNG-importing countries into the market

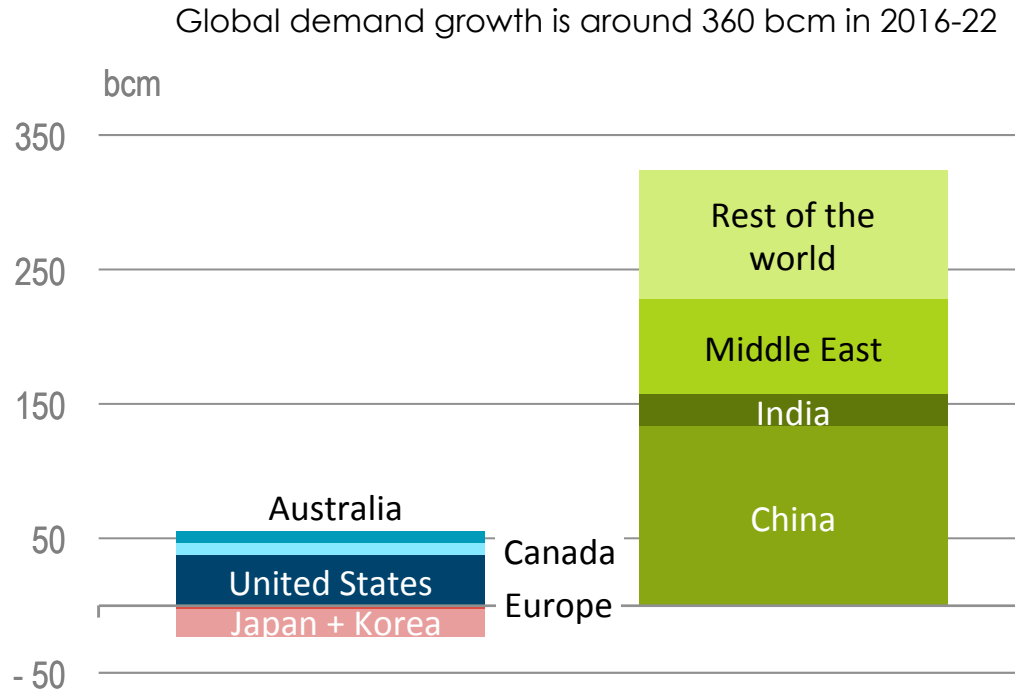
❑ **Strategic & environmental role of gas deserves attention from policy makers**

Demand growth moves from power generation to industrial sector



China, US and India account for half of the growth in industry sector, driven by chemicals and fertilisers

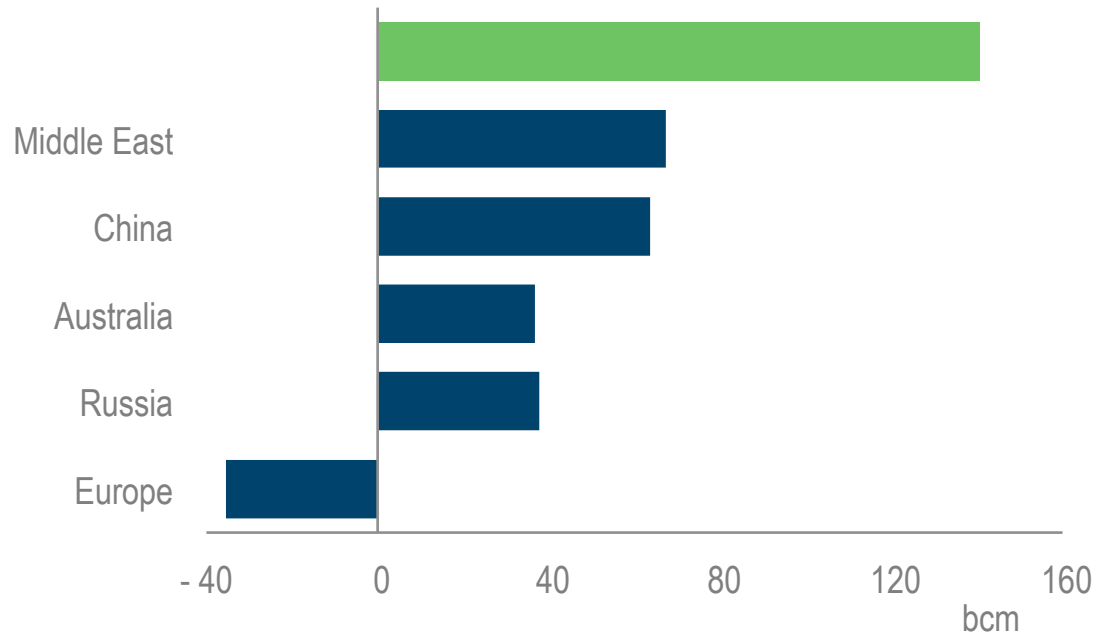
Demand growth focuses in developing countries



Developing countries account for around 90% of the incremental demand
The United States accounts for most of the growth in the developed economies

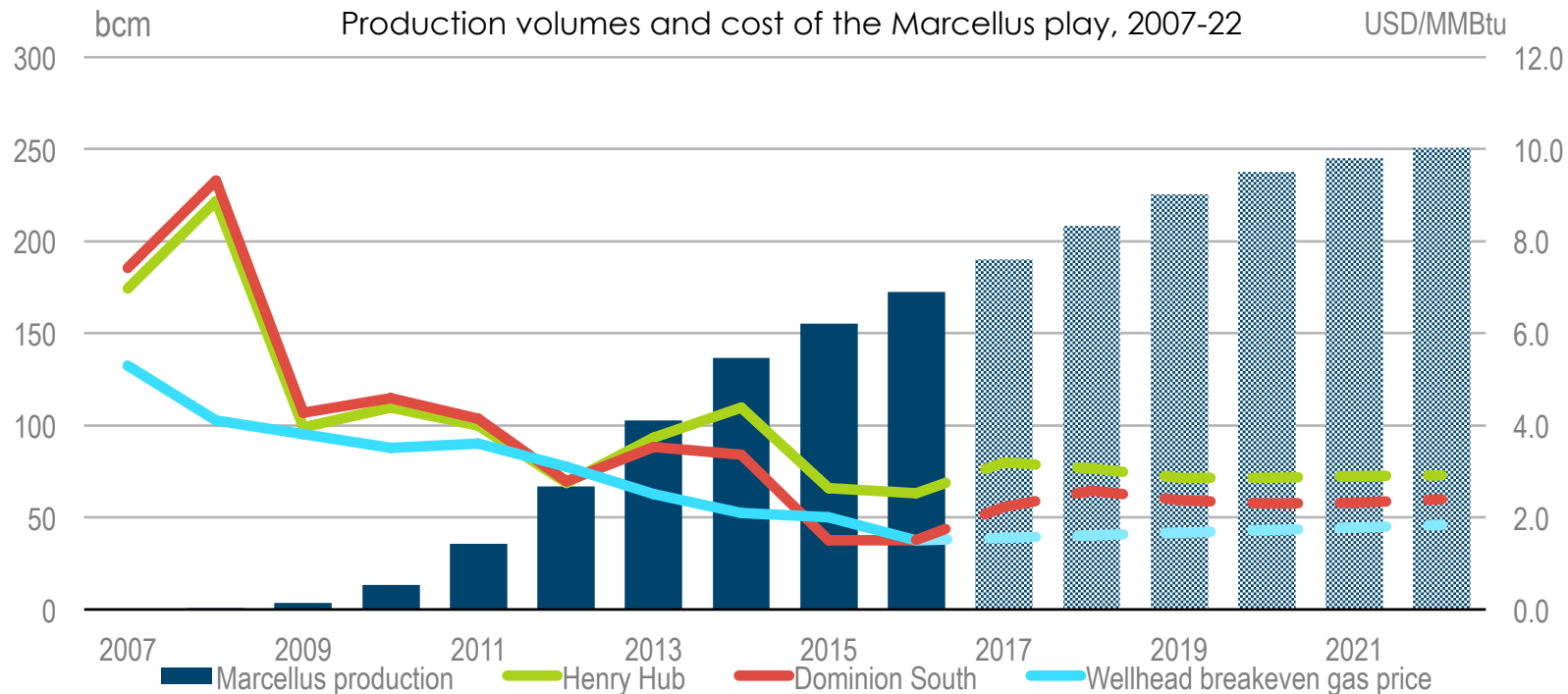
The United States accounts for 40% of global production growth

Global production growth, 2016-22



**The Middle East will continue its production growth
China will become the 4th largest gas producer**

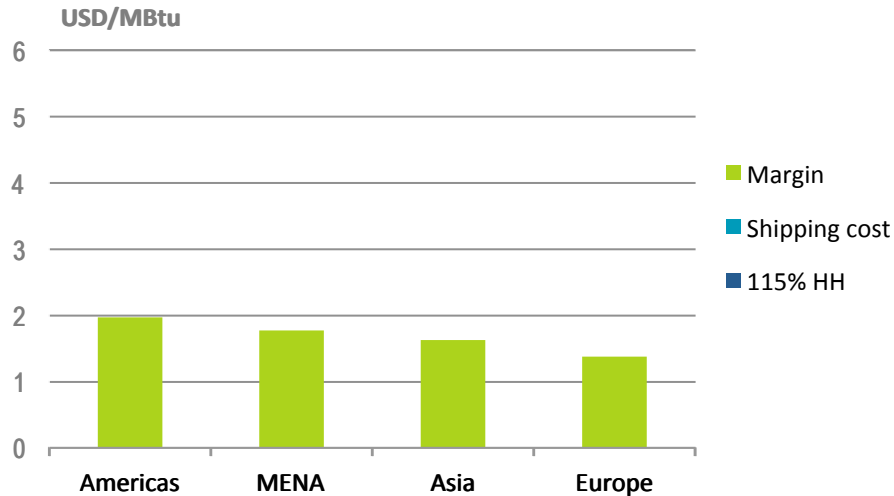
Low production cost supporting continuous growth



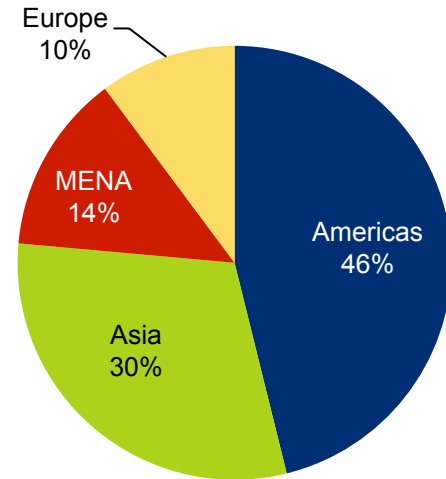
**The Marcellus, one of the largest fields worldwide, will grow by 45% in 2016-22
Ensuring pipeline access would be vital**

US LNG's destinations driven by premium in 2016

US LNG merit order among regions, 2016

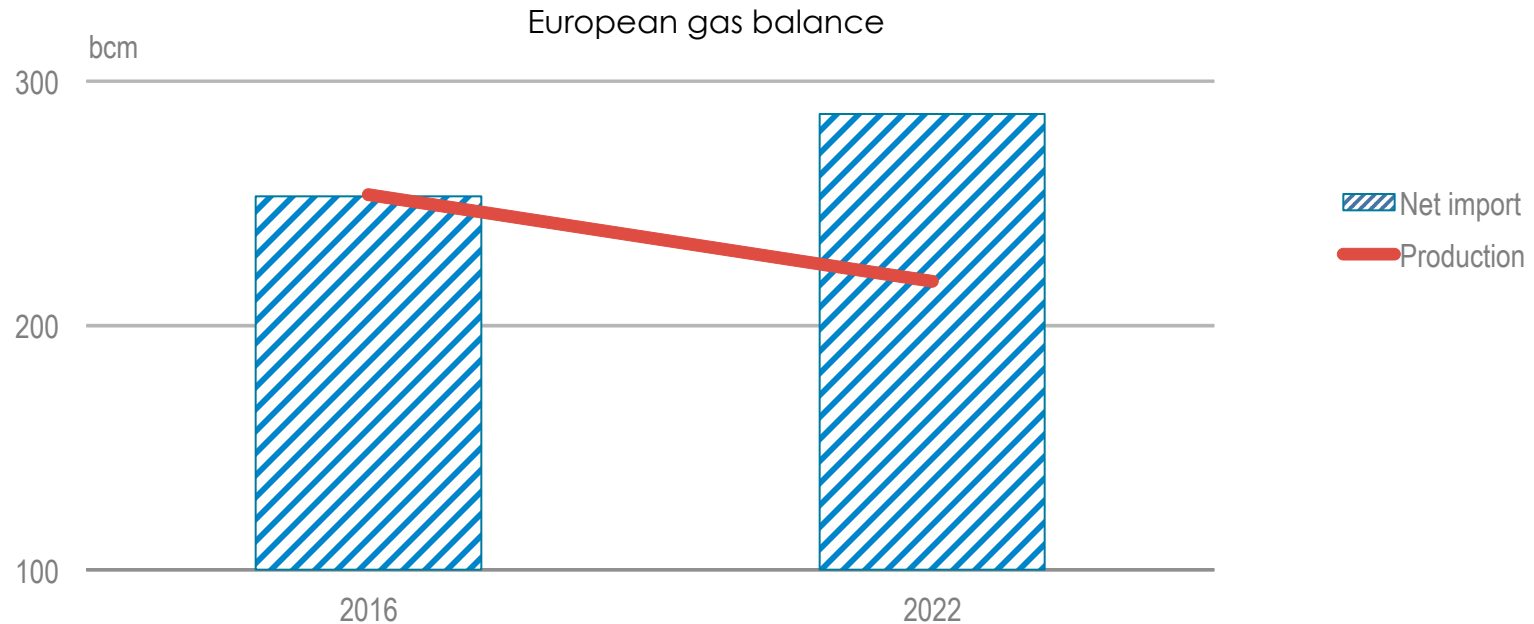


Share of US LNG destination by region, 2016



In 2016, US LNG was exported to destinations which have higher margin

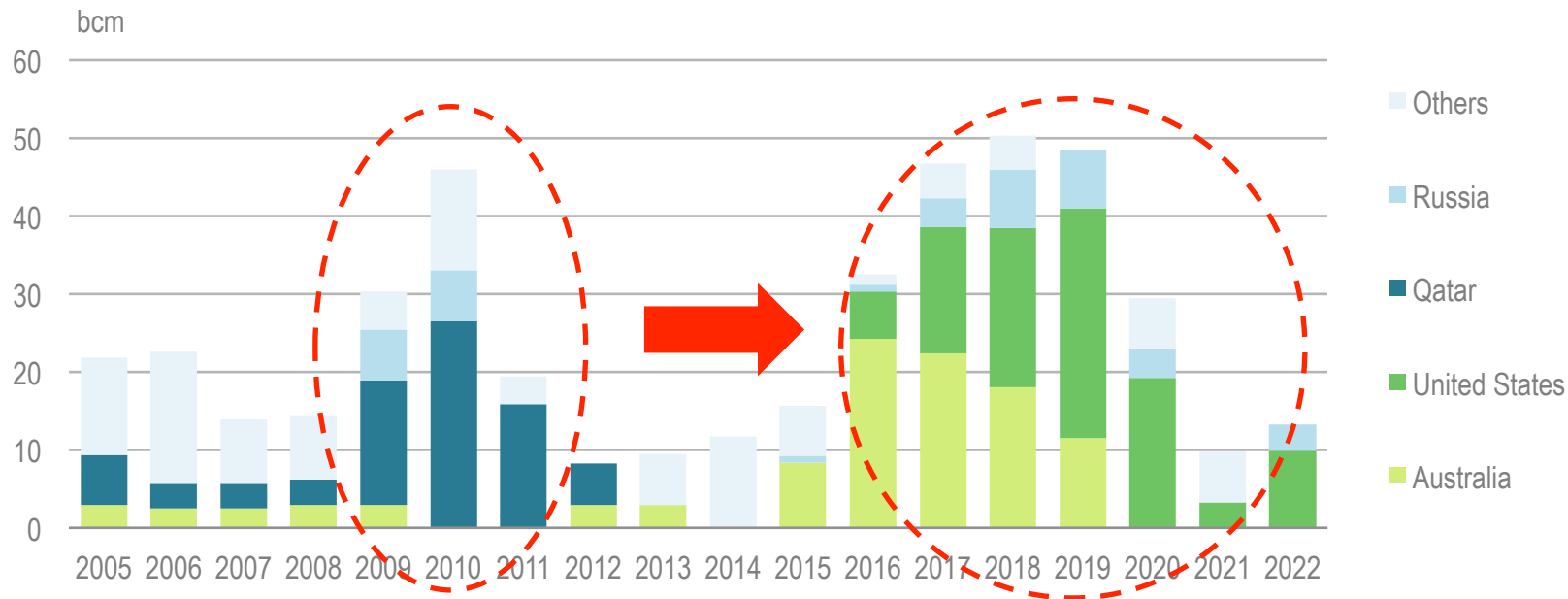
Decreasing European production, increasing import needs



**European import requirement grows steadily with flat demand and declining production
It is up to competition between pipeline and LNG to fill this gap**

Second wave of additional LNG supply is already coming online

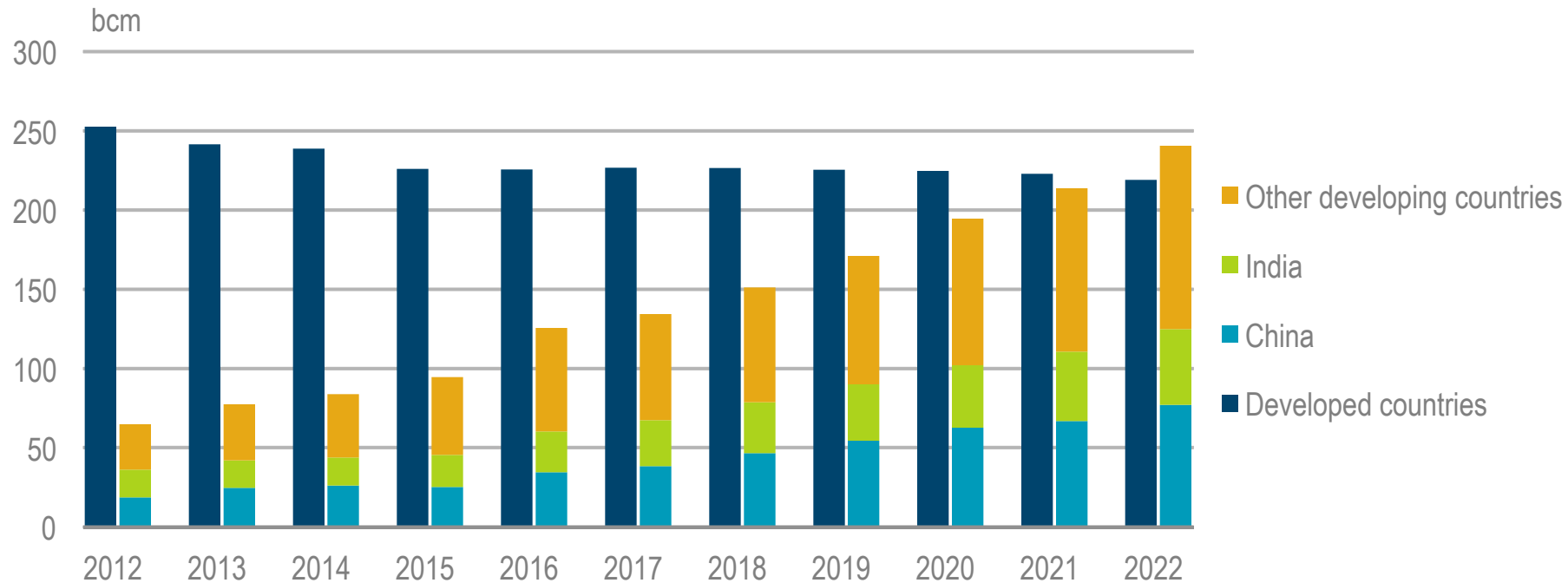
Incremental LNG capacity , 2005 - 2022 (bcm)



**15 new projects with total export capacity of around 140 bcm are now under construction
Australia and the United States account for 75% of them**

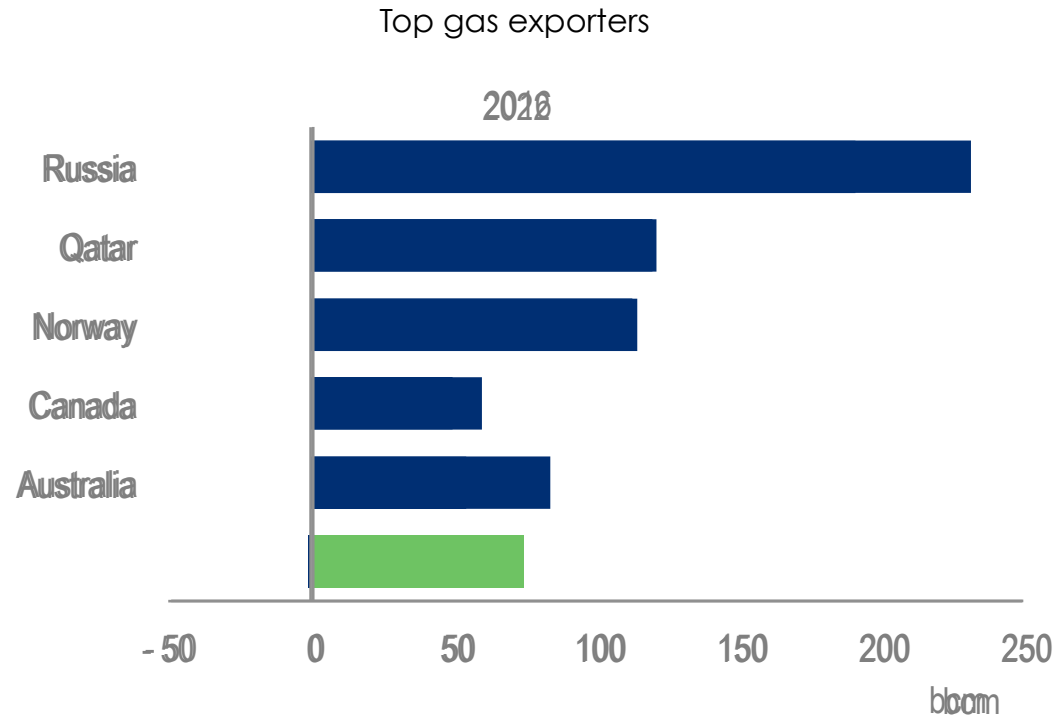
Demand in developing countries reshaping the LNG market

LNG import volumes , 2012 - 2022 (bcm)



China, India and other developing countries will import more than 50% of all LNG by 2022

United States will join the club of top gas exporters



A wave of new LNG supply, led by the US, will provide more options to guard against supply shocks, changing the gas security equation

- ❑ **Lower prices help gas to strengthen its foothold in Asia**
 - Developing countries account for 90% of demand growth, China alone for 40%
 - Industrial consumers take over from power generation as the main source of growth

- ❑ **The US takes the lead on global supply as the shale revolution gets a second wind**
 - The US generates almost 40% of the rise in global output & the largest increase in exports

- ❑ **New diversity to global supply & trade, with new entrants on demand & supply side**

- ❑ **A glut of LNG continues to put pressure on markets**
 - Challenges to existing suppliers, business models and pricing mechanisms

- ❑ **Even though markets remain well supplied, recent events remind us that gas security cannot be taken for granted**