



APERC Workshop at EWG 55
Hong Kong, China, 14 May 2018

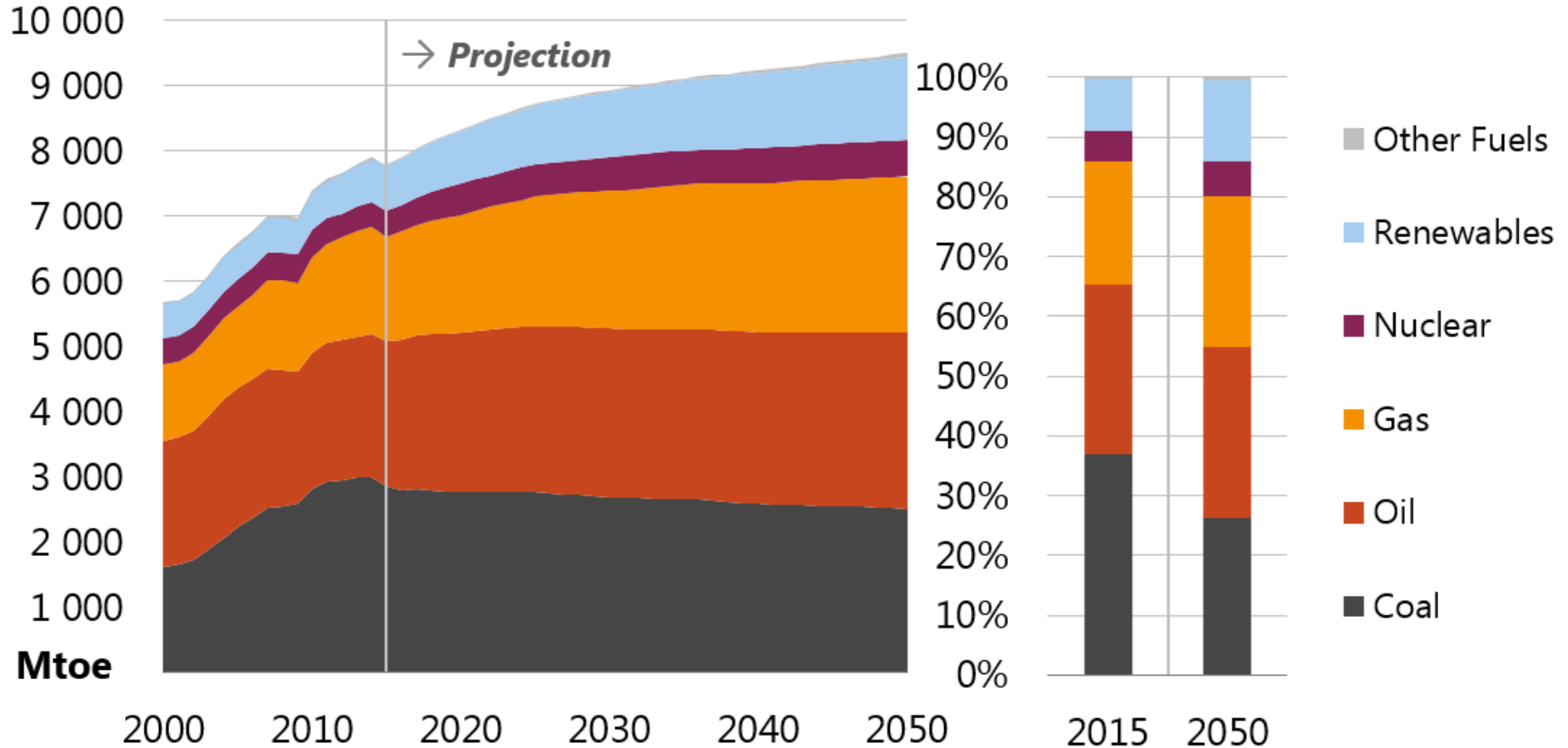
3-4. Fossil Energy Supply

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Fossil fuels continue to dominate fuel mix in 2050

APEC total primary energy supply, 2015-2050

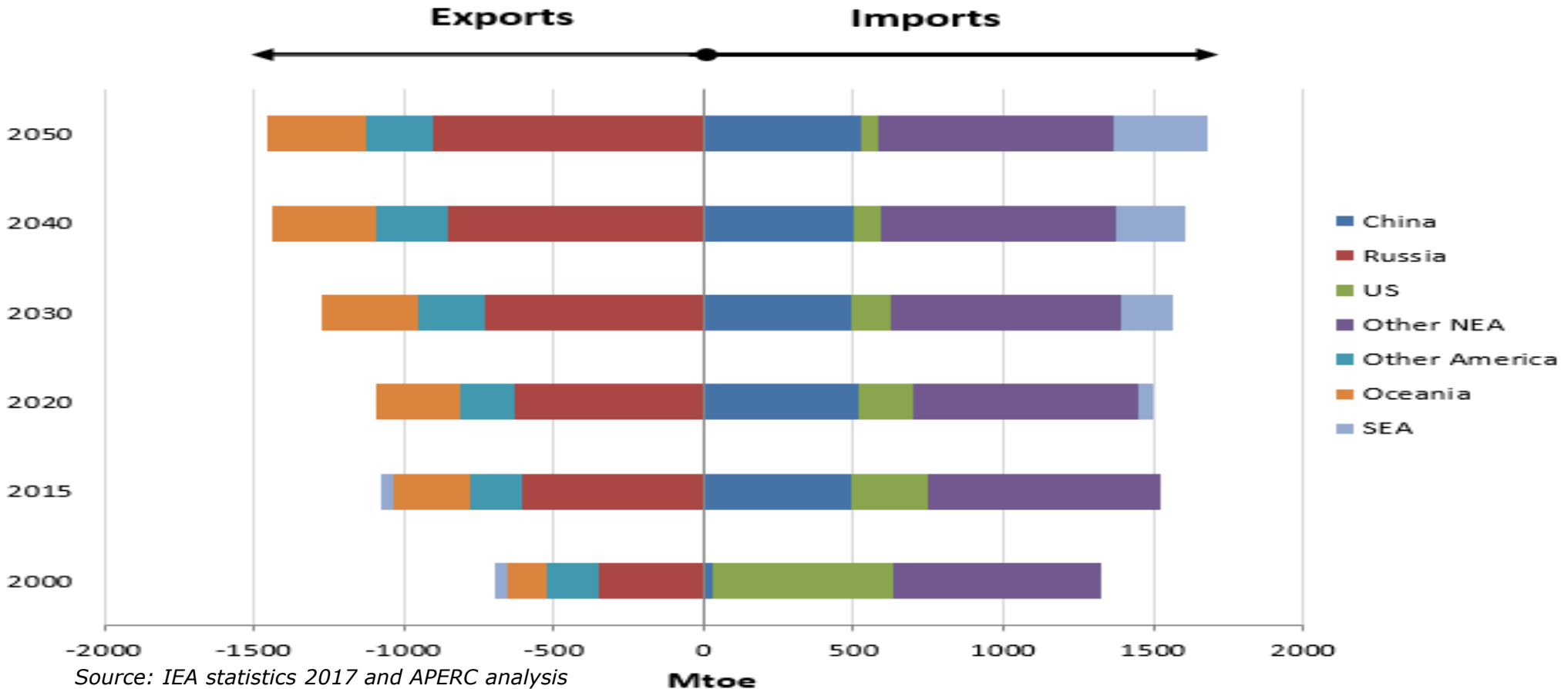


Source: IEA statistics 2017 and APERC analysis

APEC energy supply is projected to rise 23% from 2015 to 2050 (9,496 Mtoe [2050] vs 7,782 Mtoe [2015]).

Net energy supply gap continues to widen

Energy supply gap by regional grouping, 2000-2050



Source: IEA statistics 2017 and APERC analysis

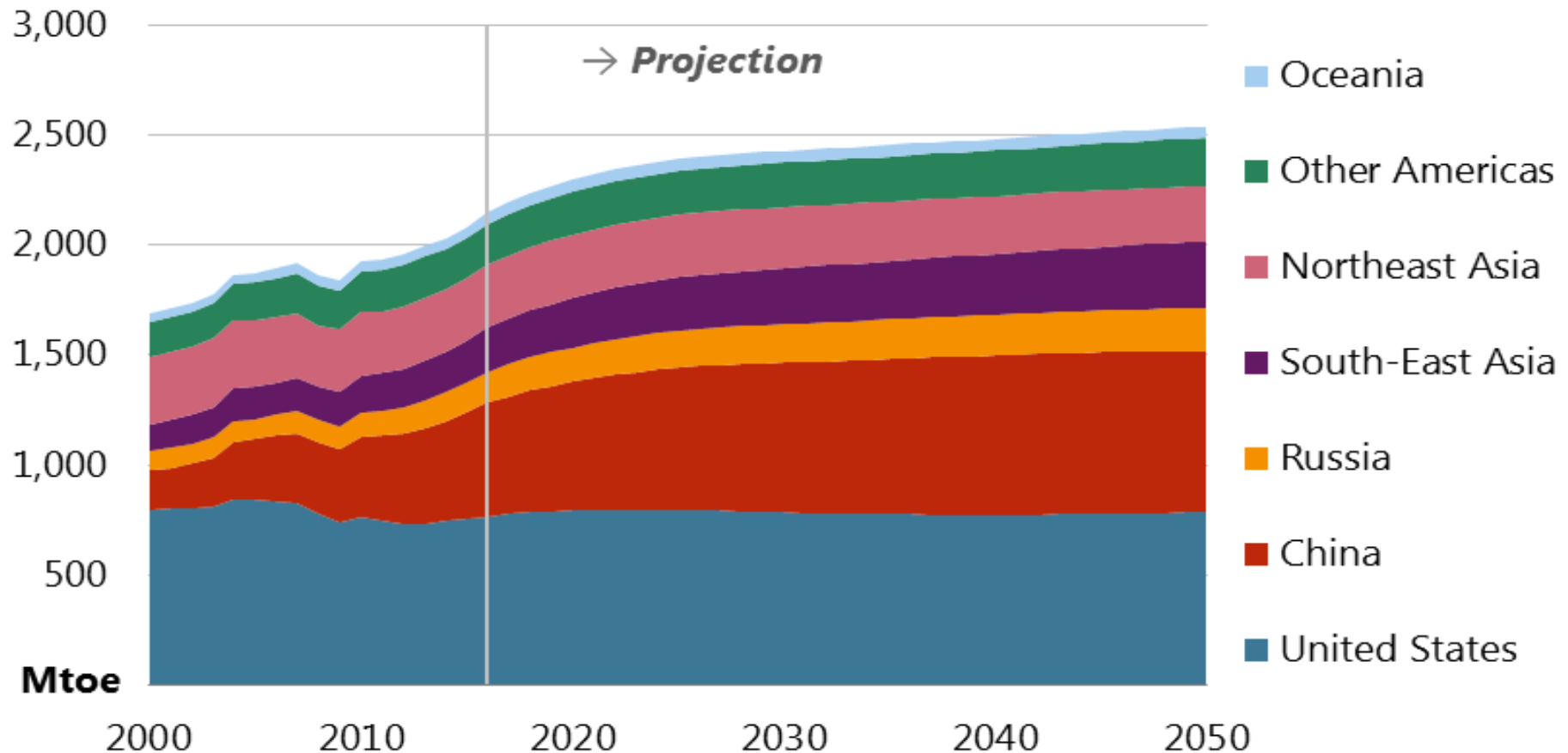
Five APEC members become net energy exporters while USA cuts its imports in half by 2050 in the BAU Scenario.



Fossil supply

Increasing oil demand in APEC is driven by China and SEA

Oil demand in China, USA and other APEC, 2000-2050

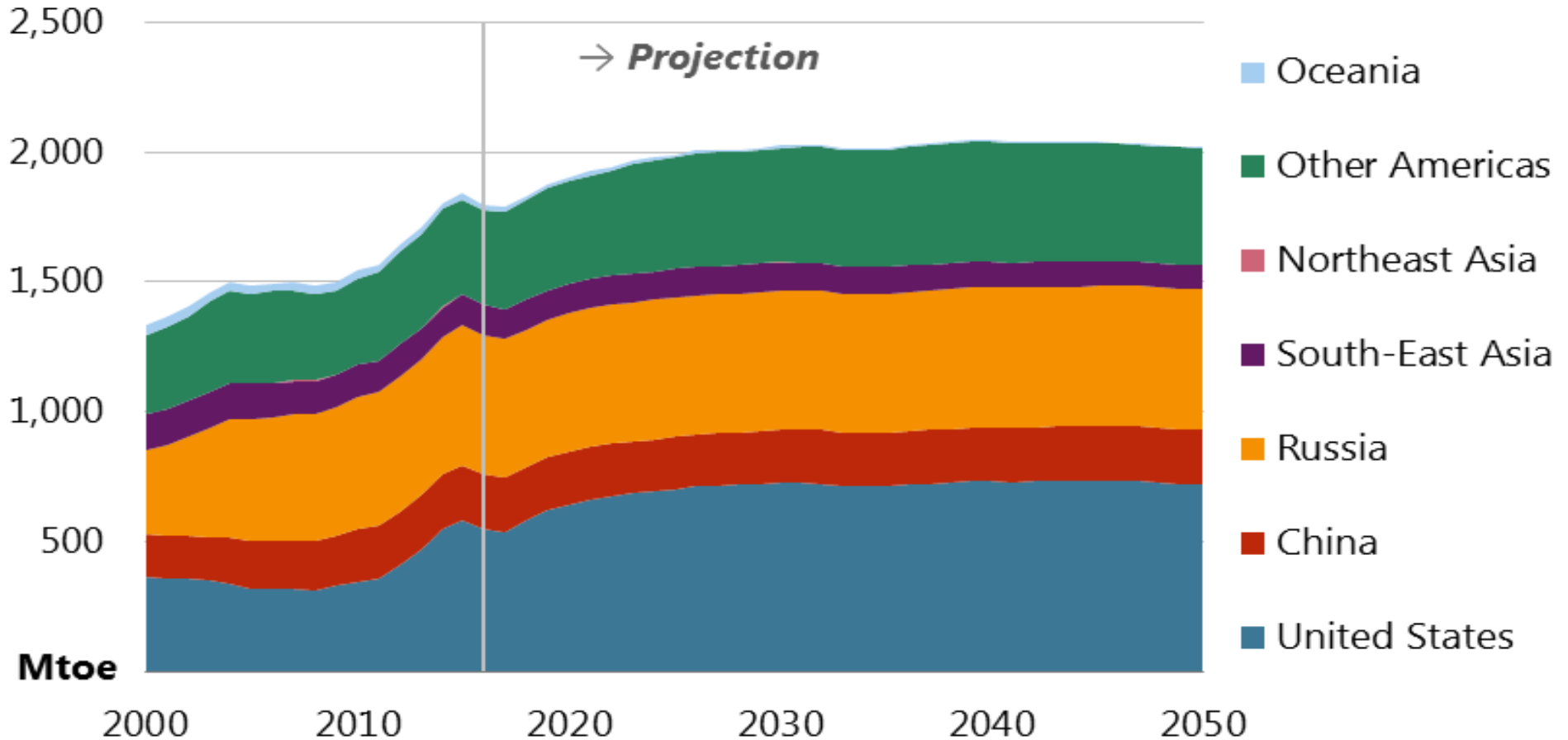


Source: IEA statistics 2017 and APERC analysis

Projected oil demand growth in China reaches AAGR 1.2% towards 2050.

76% of APEC crude production in 2050 is from the USA, Russia, Canada, China and Mexico

APEC crude oil production by region, 2000-2050



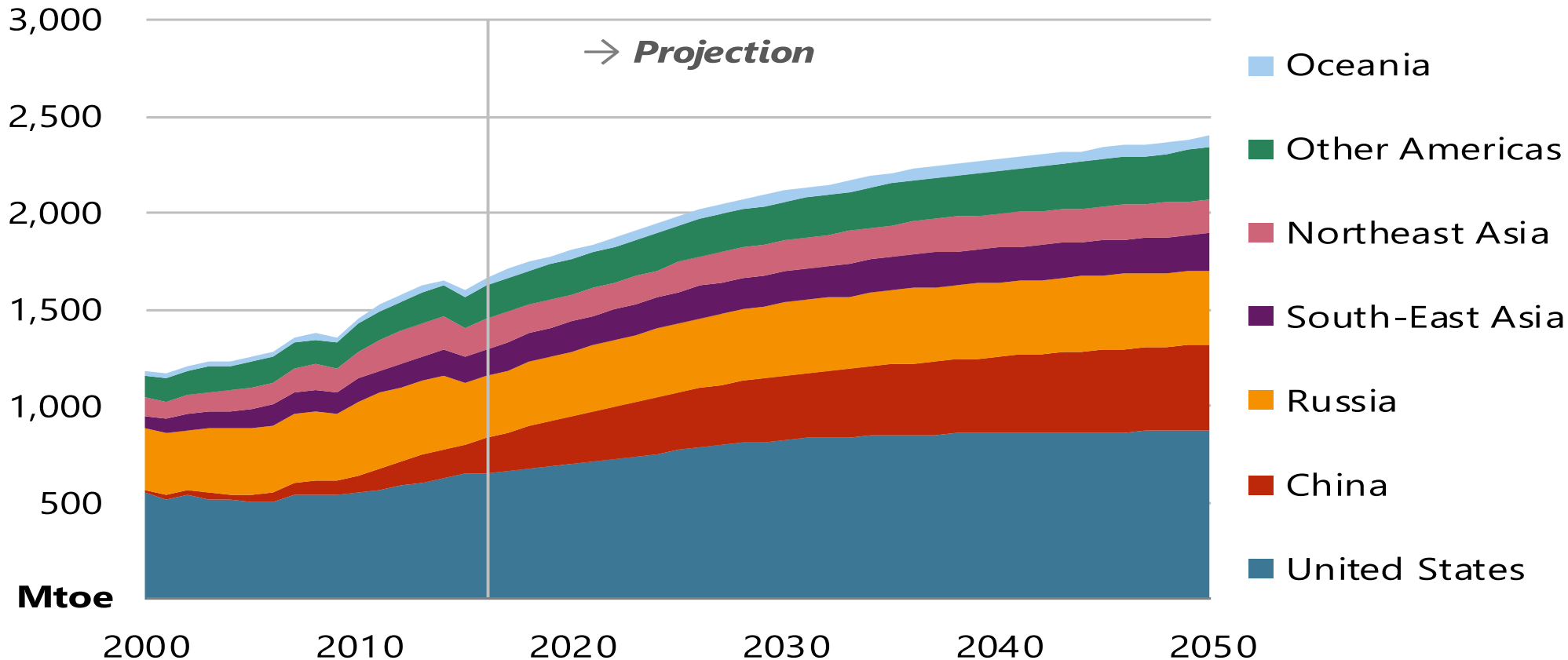
Source: IEA statistics 2017 and APERC analysis.

APEC production rises 10% from 2015 to 2050.

Shale oil from USA increases while SEA production declines by 2050.

Natural gas supply sees strong growth to 2050

APEC natural gas supply by region, 2000-2050

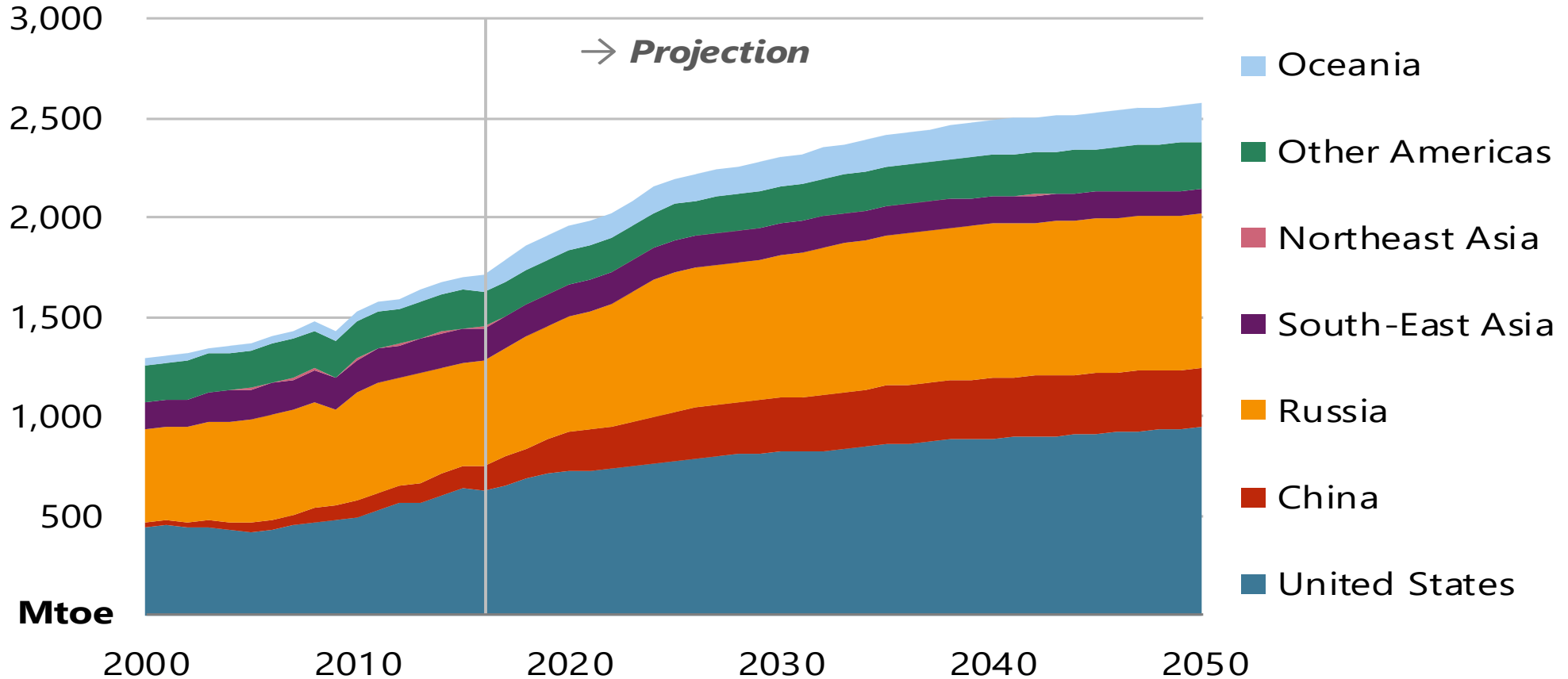


Source: IEA statistics 2017 and APERC analysis.

Natural gas supply increases by 50% to reach 2,400 Mtoe by 2050 with largest growth observed in China. Key consumption is in power generation (42%), followed by buildings (17%) and industry (10%).

Natural gas production surpasses oil in 2020 and continues its fast growth to 2050

APEC natural gas production by region, 2000-2050



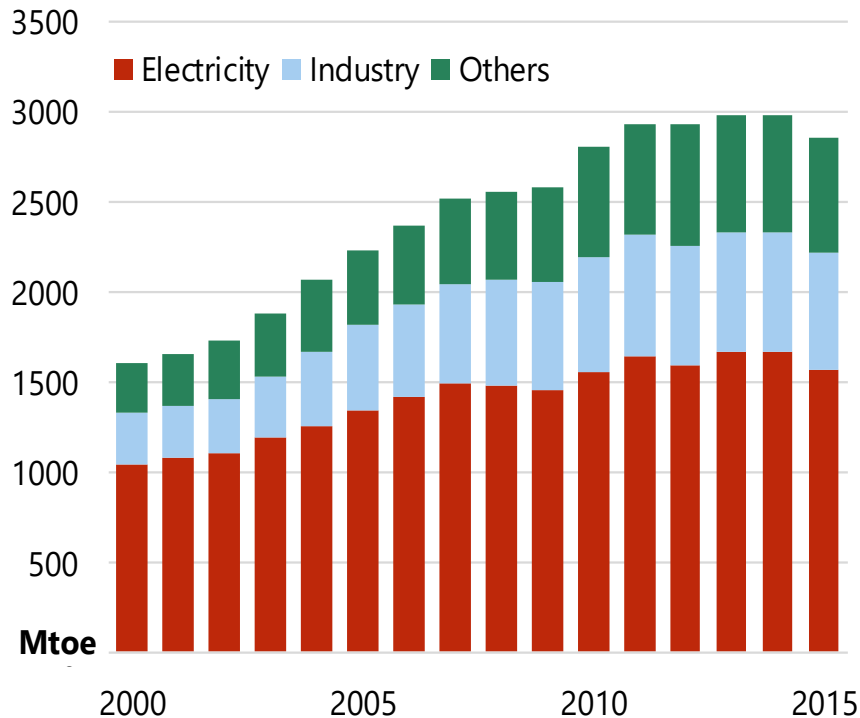
Source: IEA statistics 2017 and APERC analysis.

Natural gas production increases by 51% to reach 2,579 Mtoe in 2050. Production from USA, Russia and China makes up nearly 80% of the APEC total.

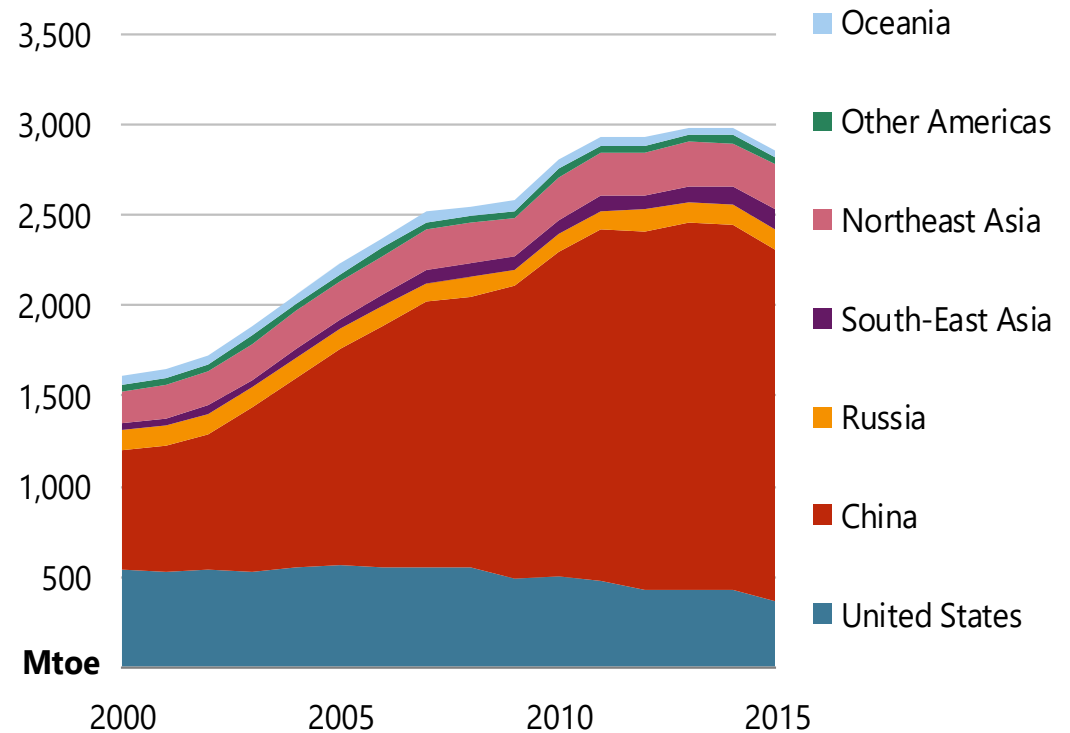
APEC consumes 75% of global coal because of its abundance and low cost

APEC sectoral and regional coal demand, 2000-2015

Coal demand by sector



Coal demand by economies and regions



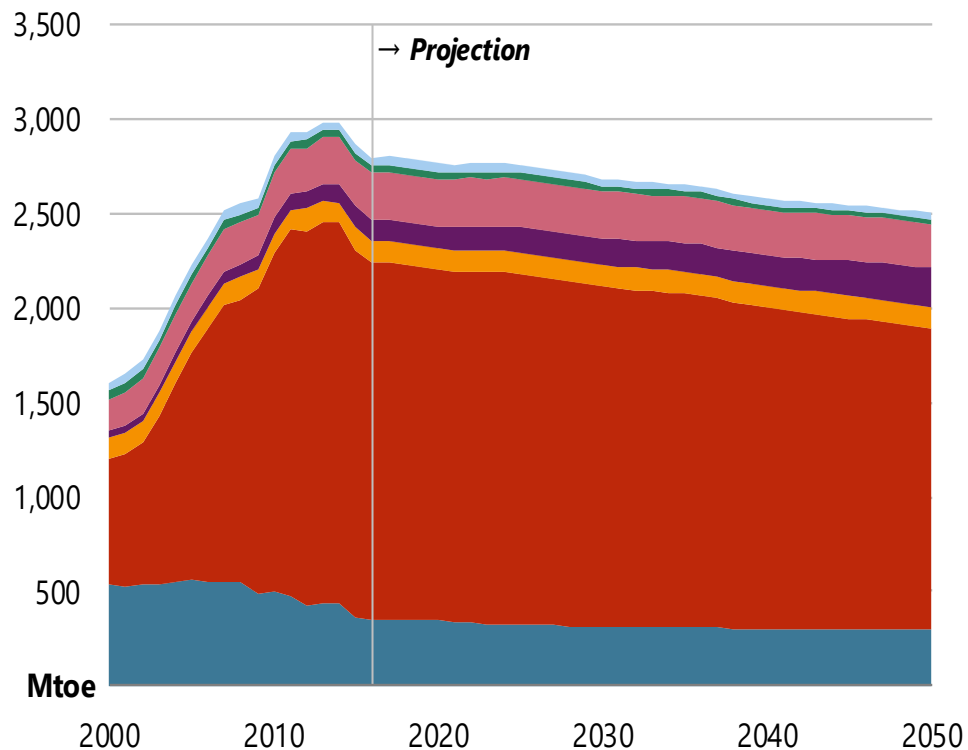
Source: IEA statistics 2017 and APERC analysis.

APEC coal demand increased by 3.9% annually from 2000 to 2015. Power and industry were largest consumers pushing coal to peak in 2013.

APEC coal supply declines from 2015 to 2050

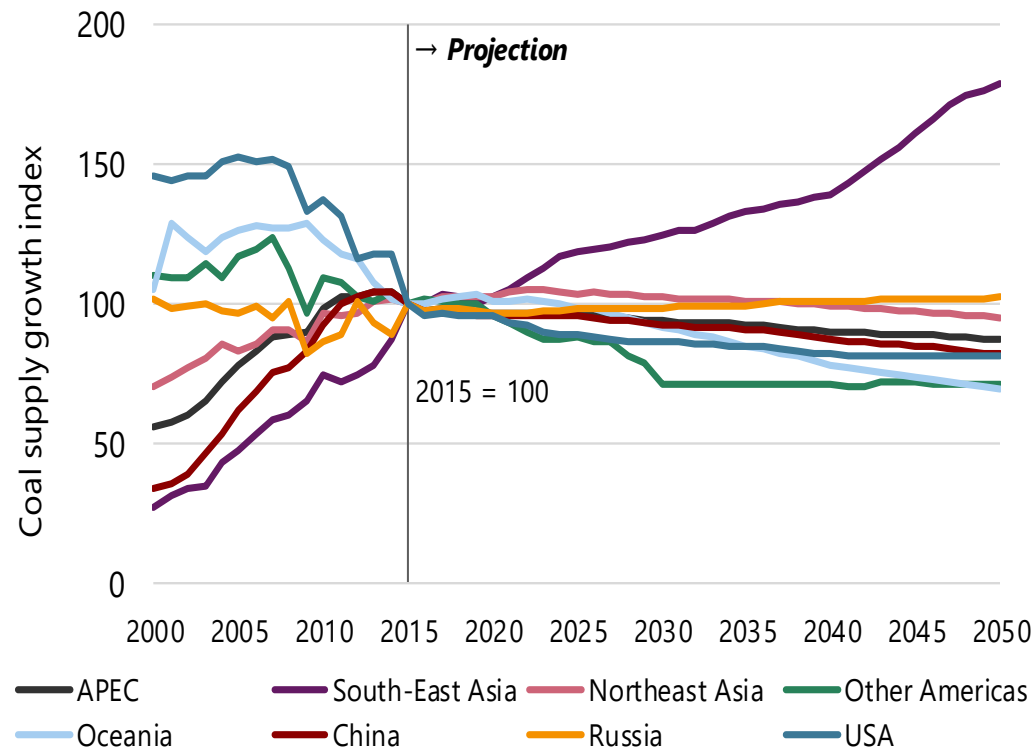
Coal supply by region and growth index, 2000-2050

Coal supply in APEC



Source: IEA statistics 2017 and APERC analysis.

Coal supply growth

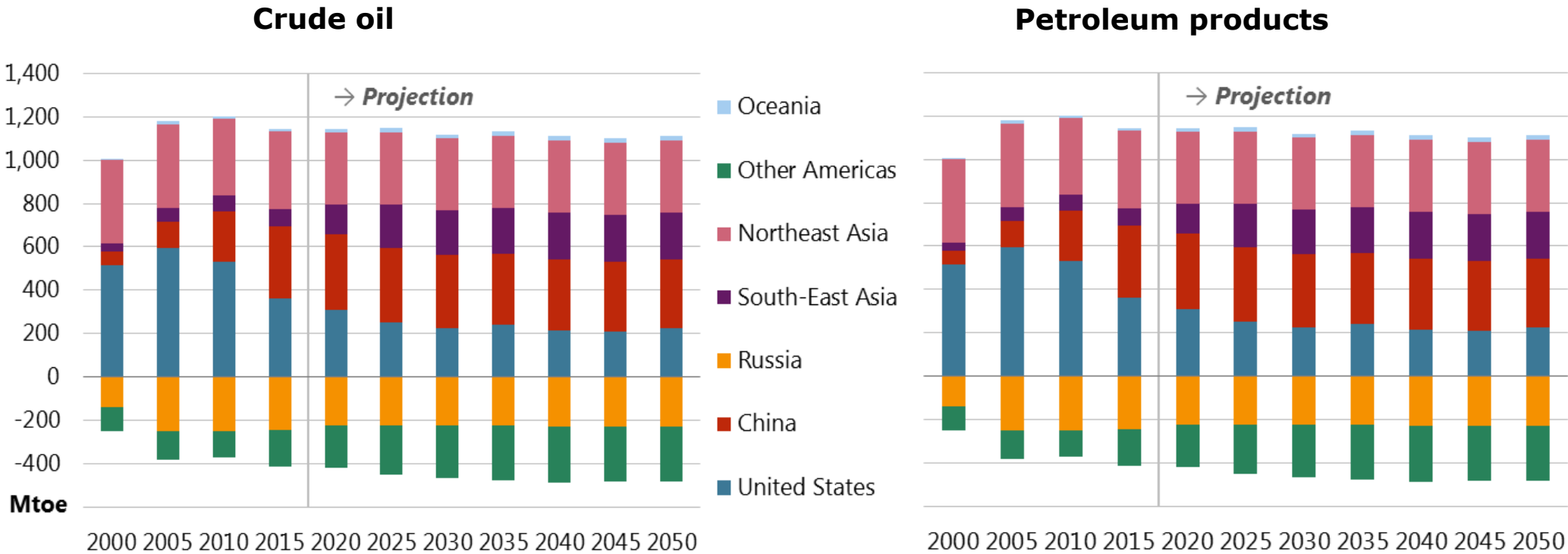


APEC coal demand passed its peak and is projected to decrease in the BAU Scenario. Increased natural gas availability and declining costs for renewables are key drivers.

An aerial composite image showing a city with a complex highway interchange, a large field of solar panels, and a volcanic eruption in the background. The scene is overlaid with a blue banner containing the title text.

Challenge and opportunity in intra-APEC energy trade

APEC net crude oil and products imports by region, 2000-2050

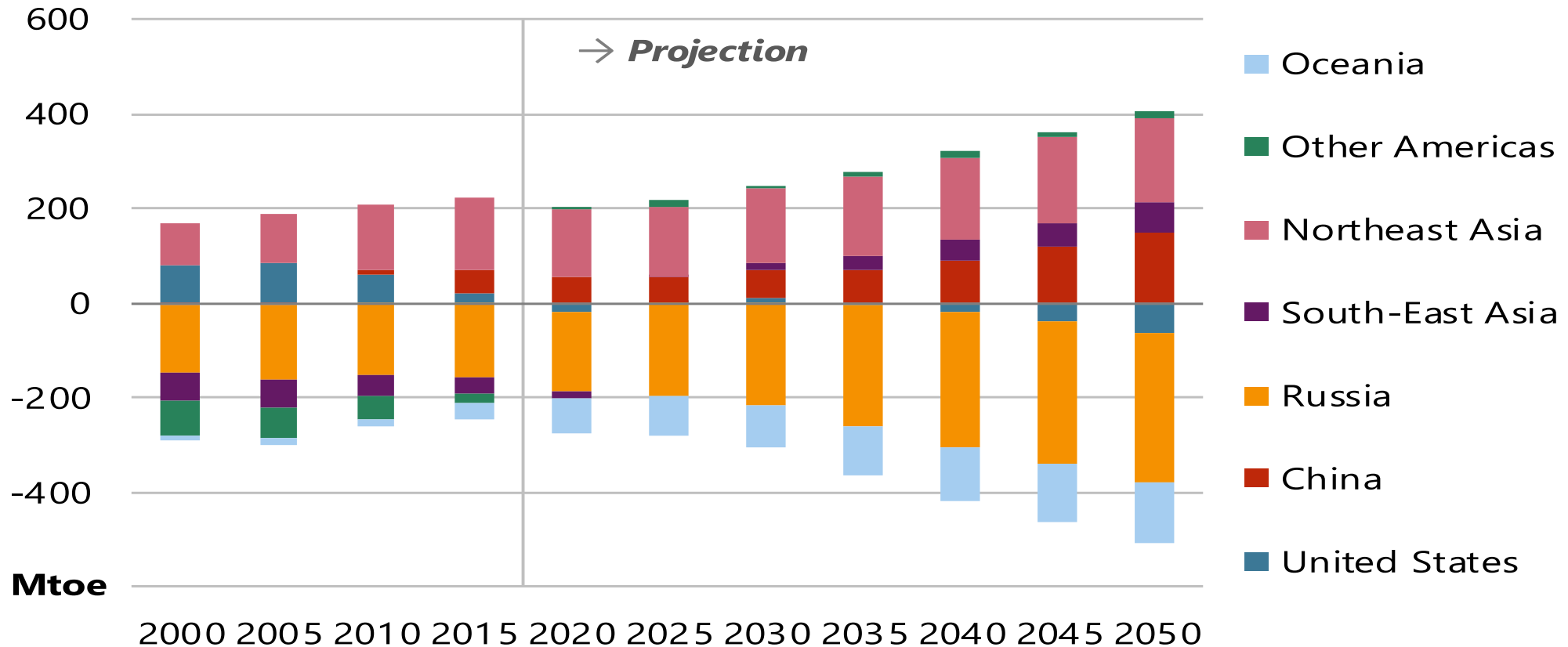


Source: IEA statistics 2017 and APERC analysis.

Shale oil in USA helps to reduce its crude oil imports. China and SEA import dependence increases to 2050.

Opportunity for APEC to develop intra-APEC natural gas trade

Total primary natural gas supply by region, 2000-2050

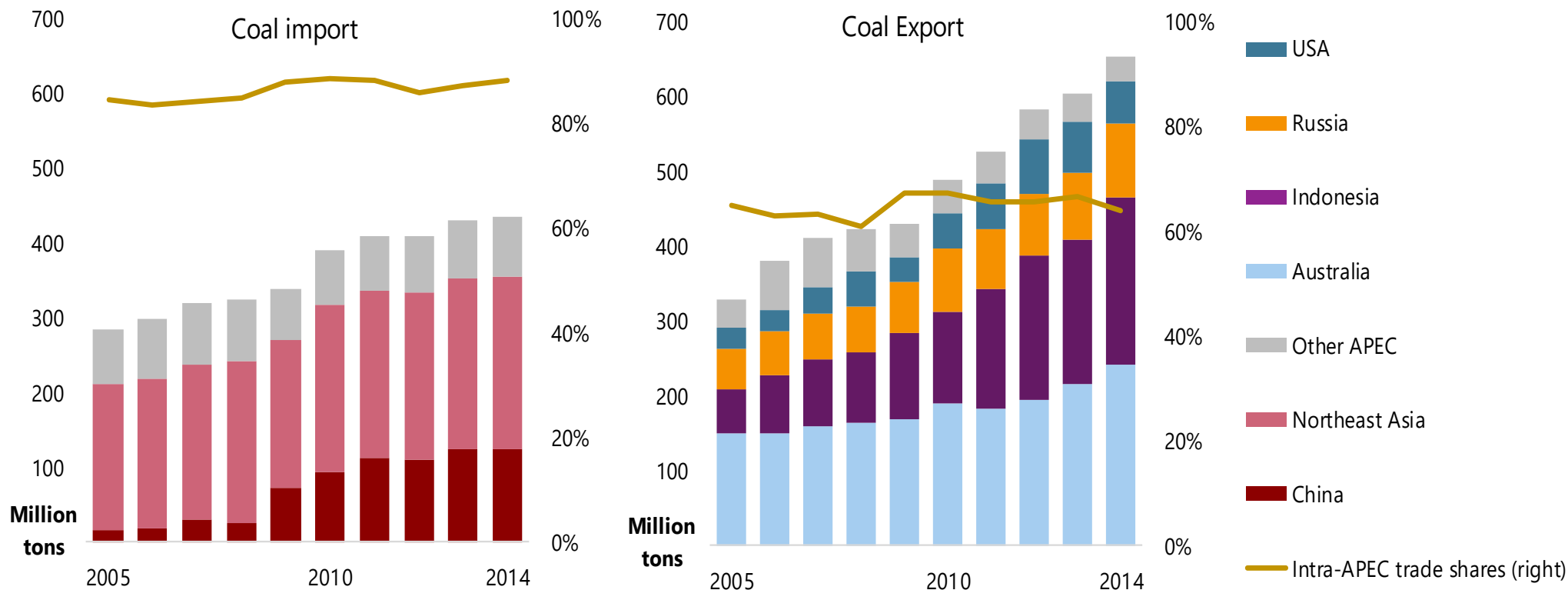


Source: IEA statistics 2017 and APERC analysis.

Natural gas exports grow by 70% while imports grow by 50% from 2015 to 2050.

Opportunity for APEC to further develop intra-APEC coal trade

Intra-APEC coal imports and exports by region, 2005-2014



Source: IEA statistics 2017 and APERC analysis.

Intra-APEC coal trade accounts for 88% of total coal imports and 64% of total coal exports.



Thank you for your kind attention

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