

# Session 1 - Key Developments in Oil and Gas Trade With Asian Growth Markets

## The Role of New Energy Policies and Technologies in Trade with Asia

(Kamel Ben Naceur, Nomadia Energy Consulting)

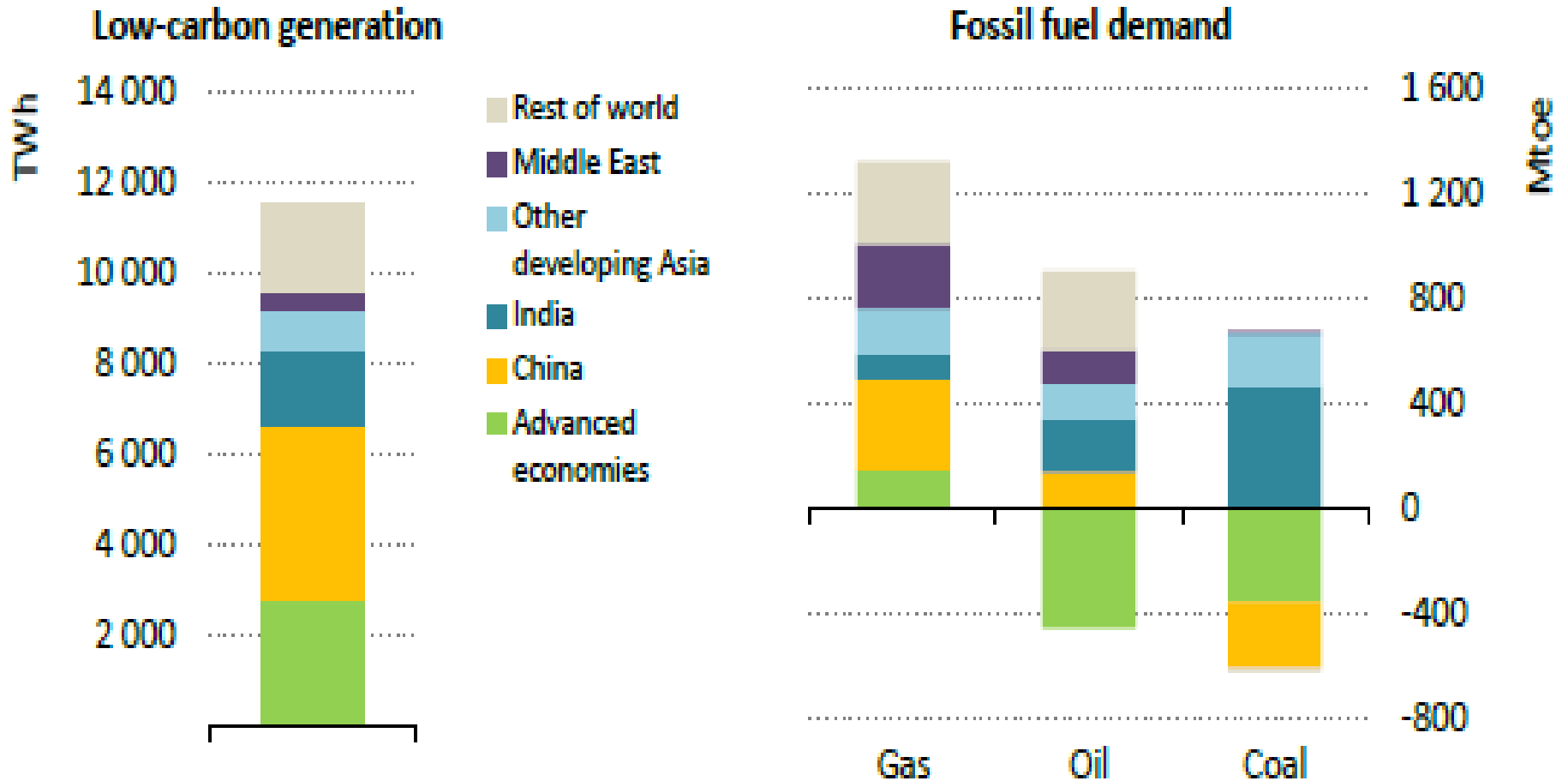


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- Global trends in energy demand
- Oil supply, demand trade and refining evolution
- Gas trade evolution
- Electricity/Renewables/Nuclear
- Decarbonization requirements

# Increase in Energy Demand (2017-2040)



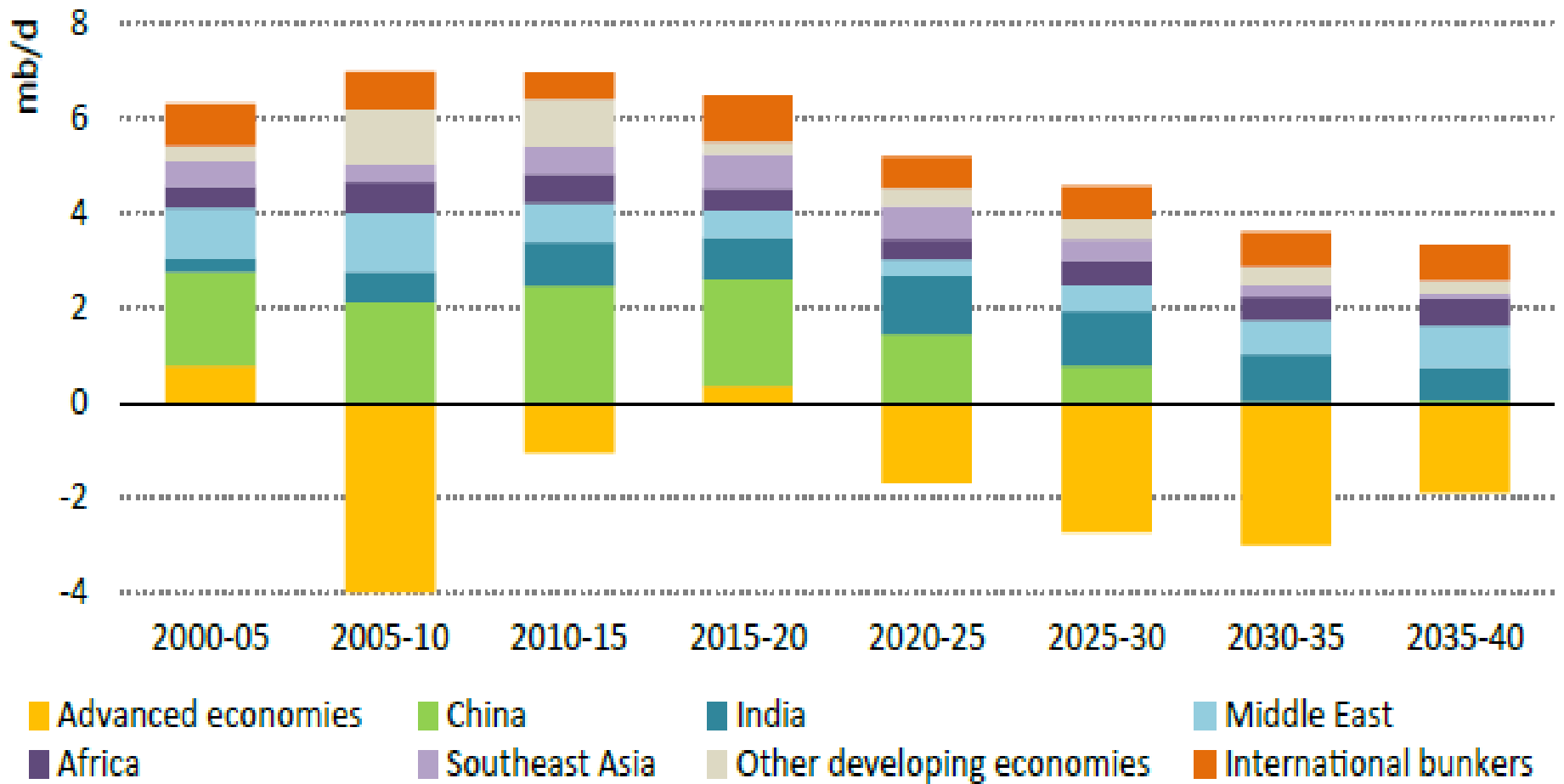
China's growth in low-carbon generation represents 1/3 of the total  
 Coal in China decrease while oil and natural gas expand

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# Oil Demand Increase: 2000-2040

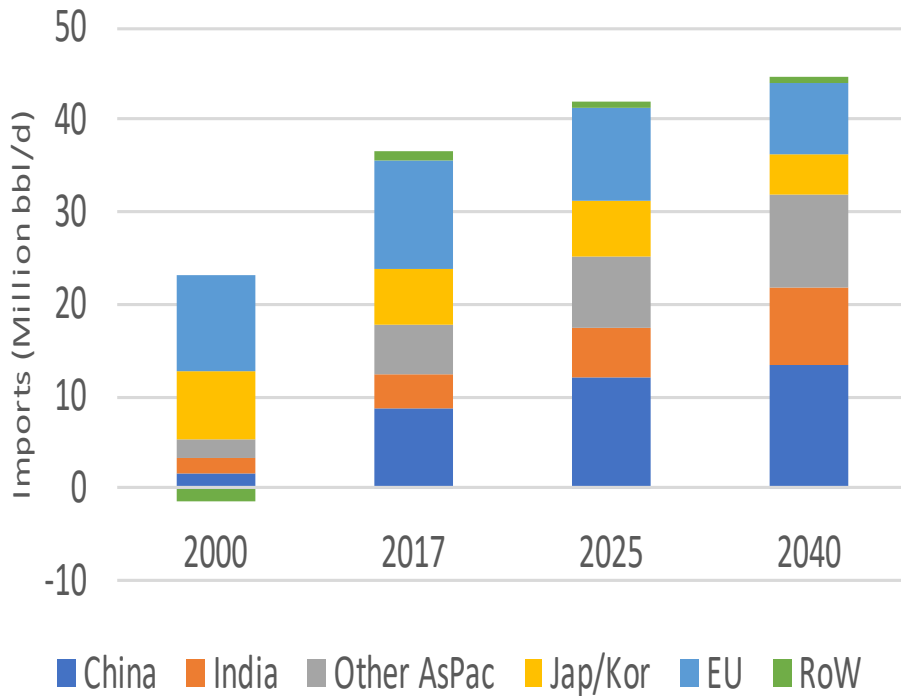


Oil demand increase shifts from China (2000-2030) to India (2010-2040)

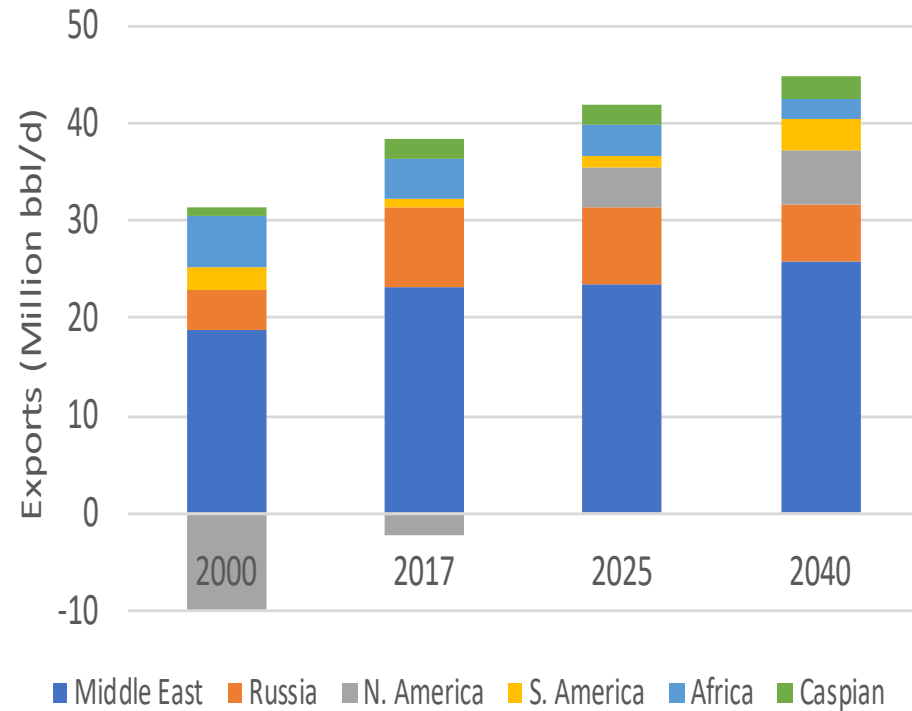
Source: WEO, 2018

# Evolution of Oil Trade (2000-2040)

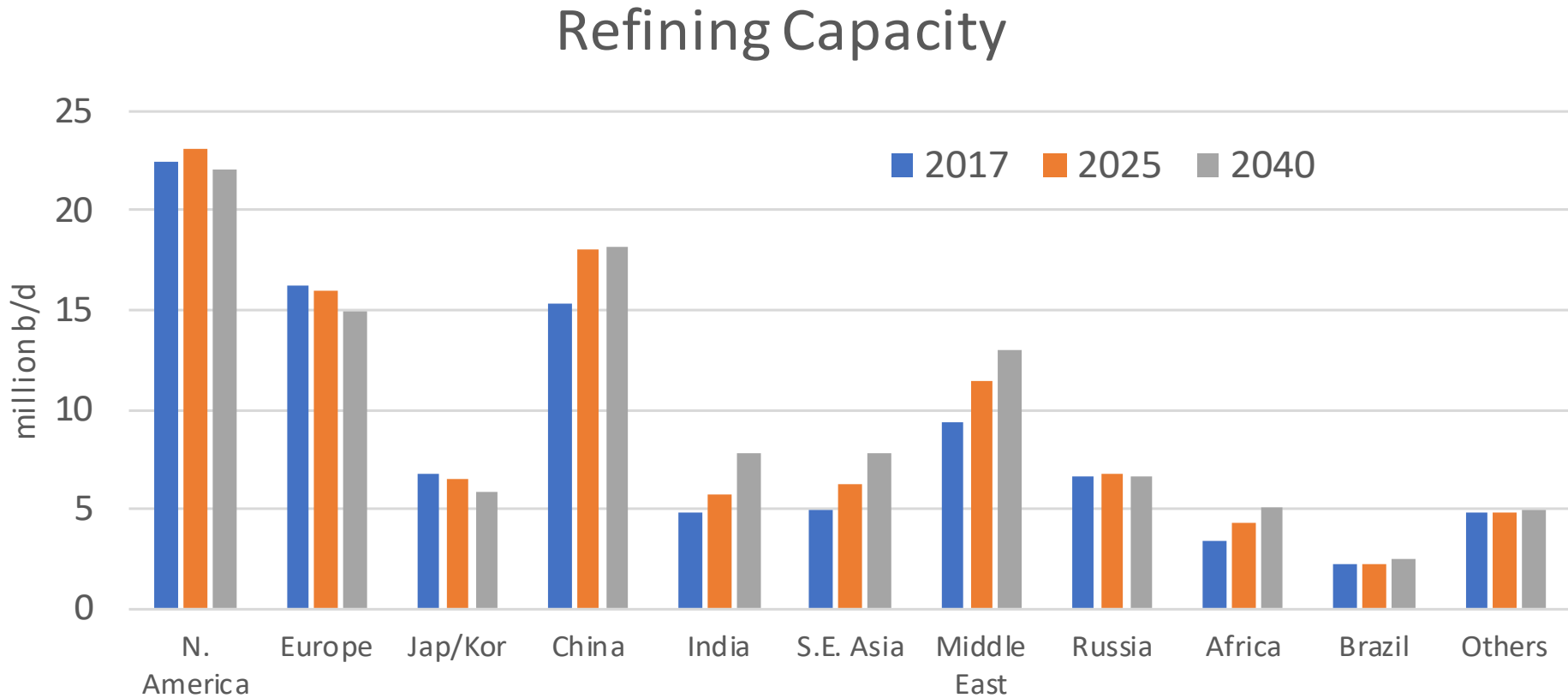
## Net Imports of Oil by Region



## Oil Net Exports (2000-2040)



# Evolution of Refining Capacity (2017-2040)



By 2040, more than 50% of the world's oil refining capacity will be East of Suez, with the largest increases in the M. East, China, India and S.E. Asia

Source: WEO 2018, Nomadia

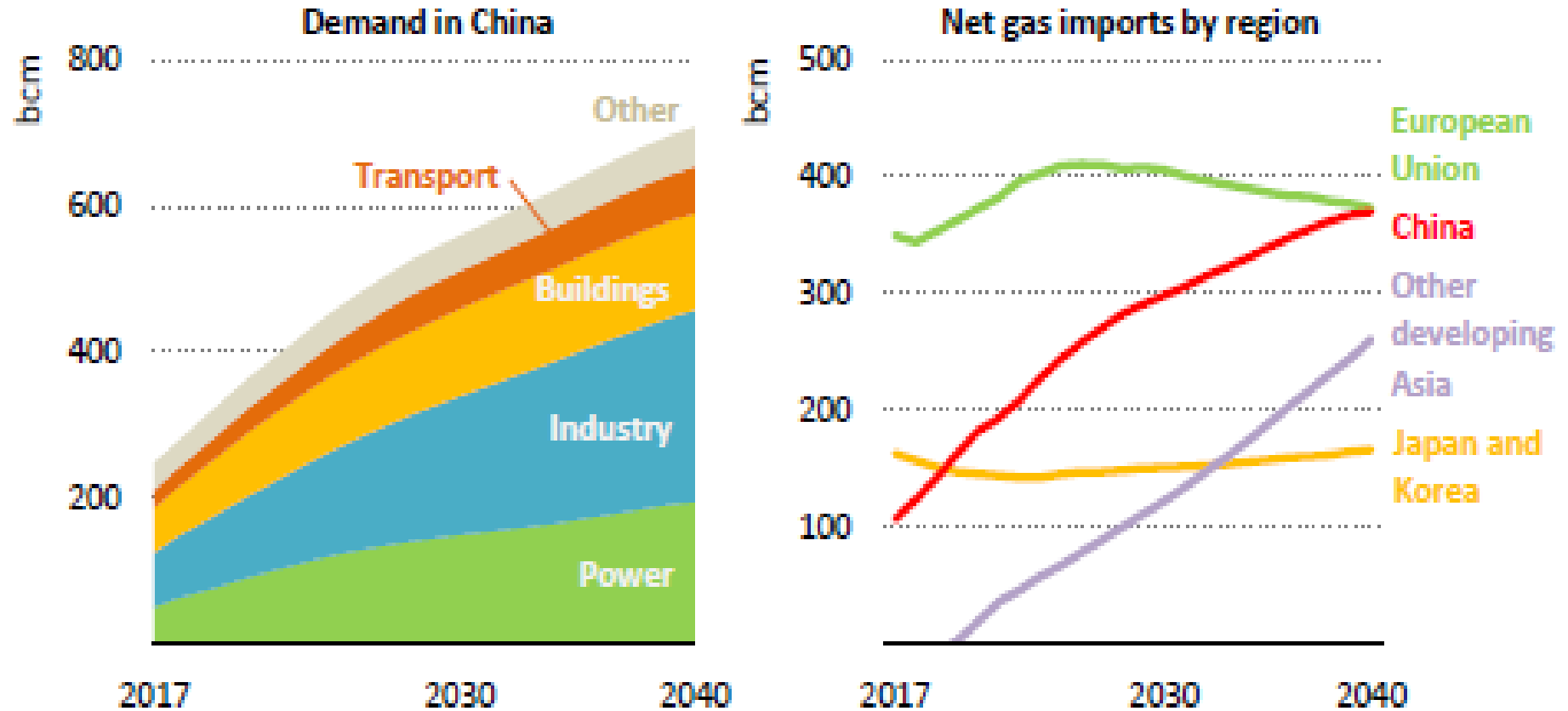
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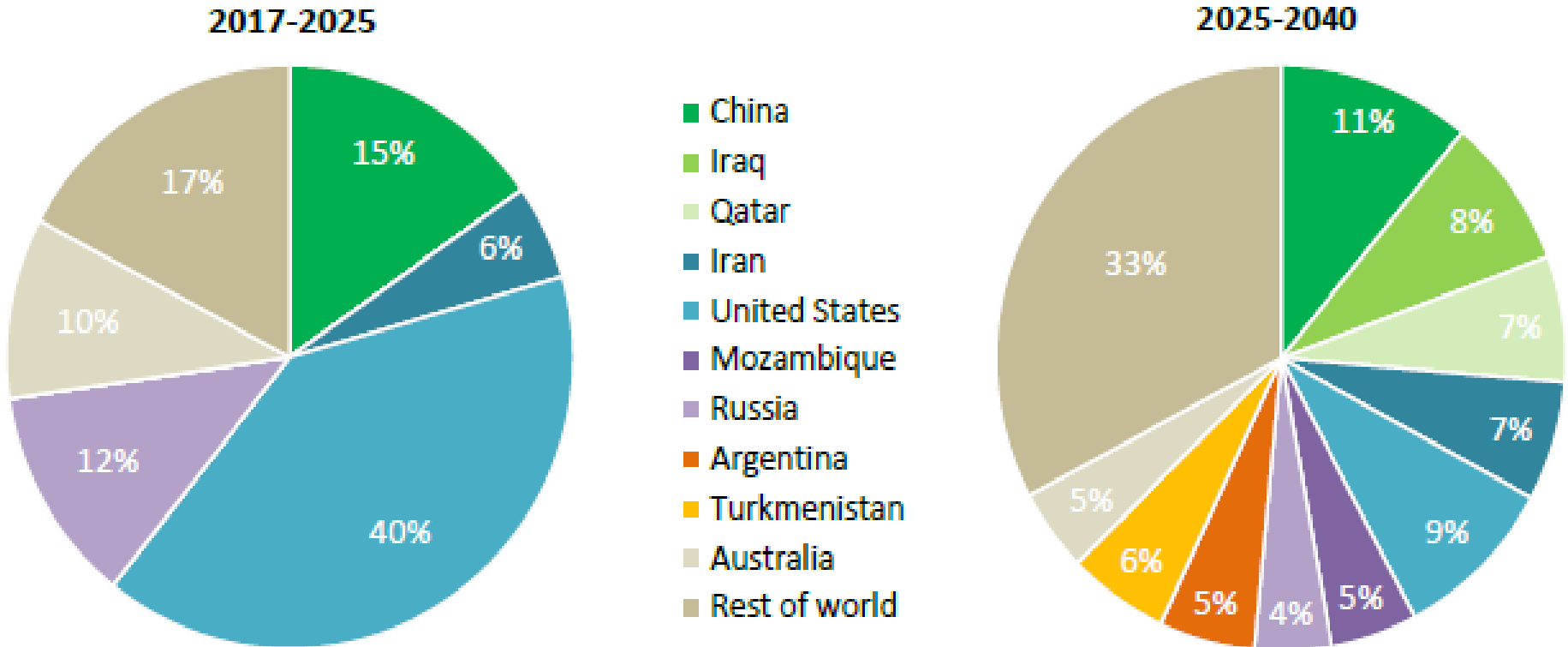
# Natural Gas Demand and Trade Expansion in China



- Demand for natural gas increases in all sectors in China, specially in power & industry
- China's net gas imports will reach EU's level by 2040
- Natural gas in China's energy mix increases from 6% today in 15% in 2040

Source: IEA

# Natural Gas Production Expansion (2017-2040)



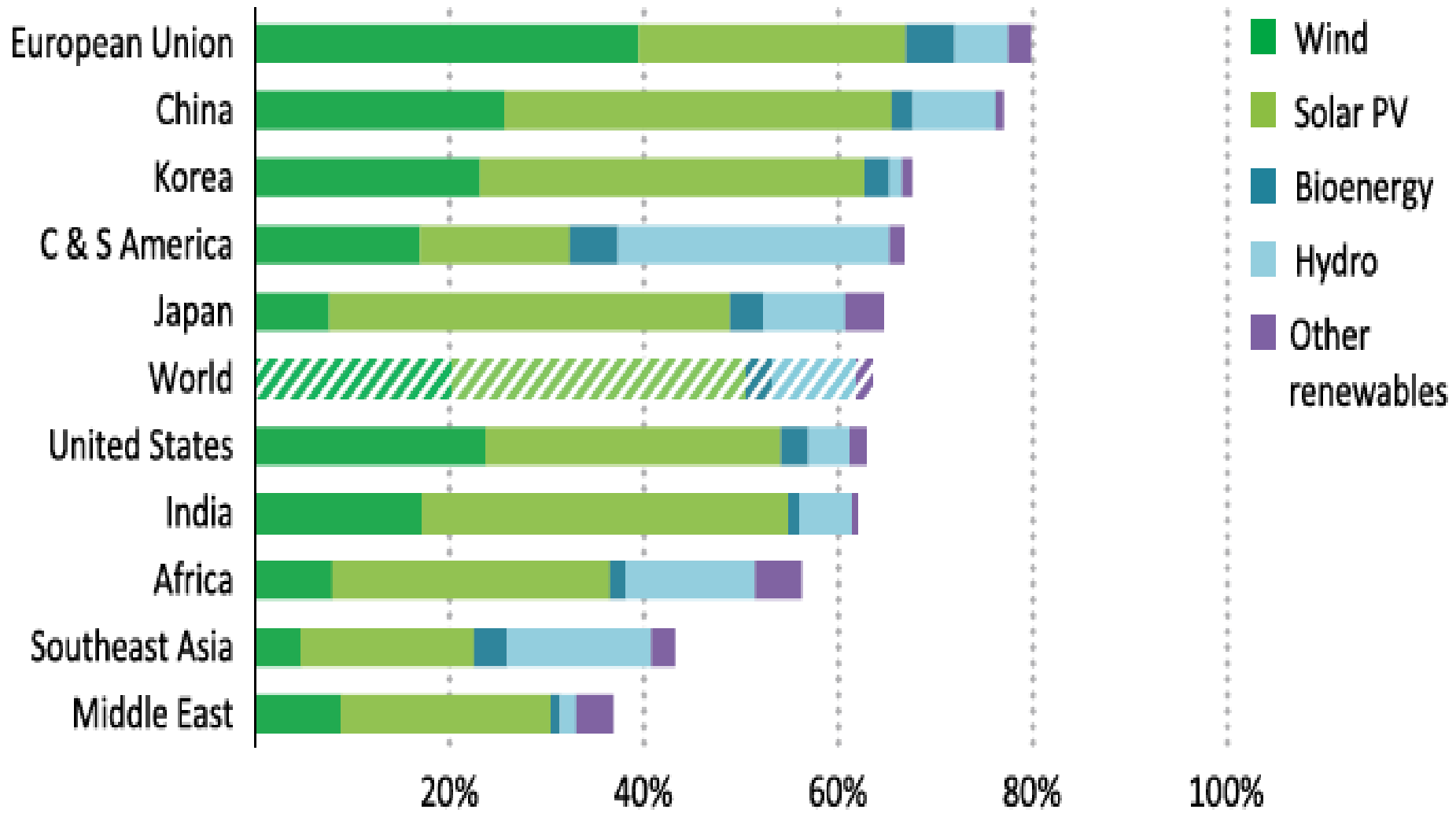
- China will see the second largest gas production (200 bcm), after the United States, becoming one of the top-5 largest gas producers
- Half of the natural gas production increase in China is associated with unconventional

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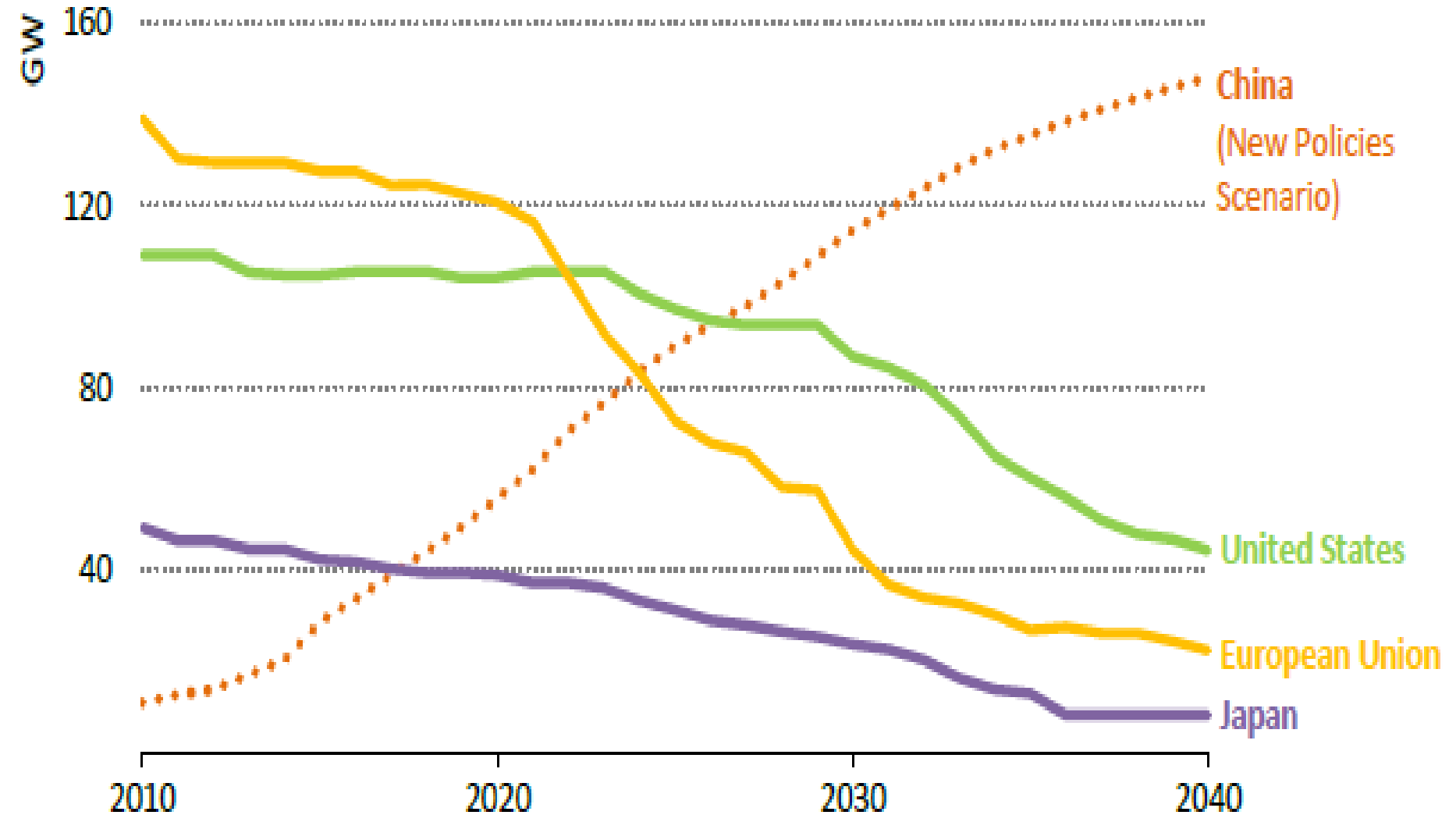
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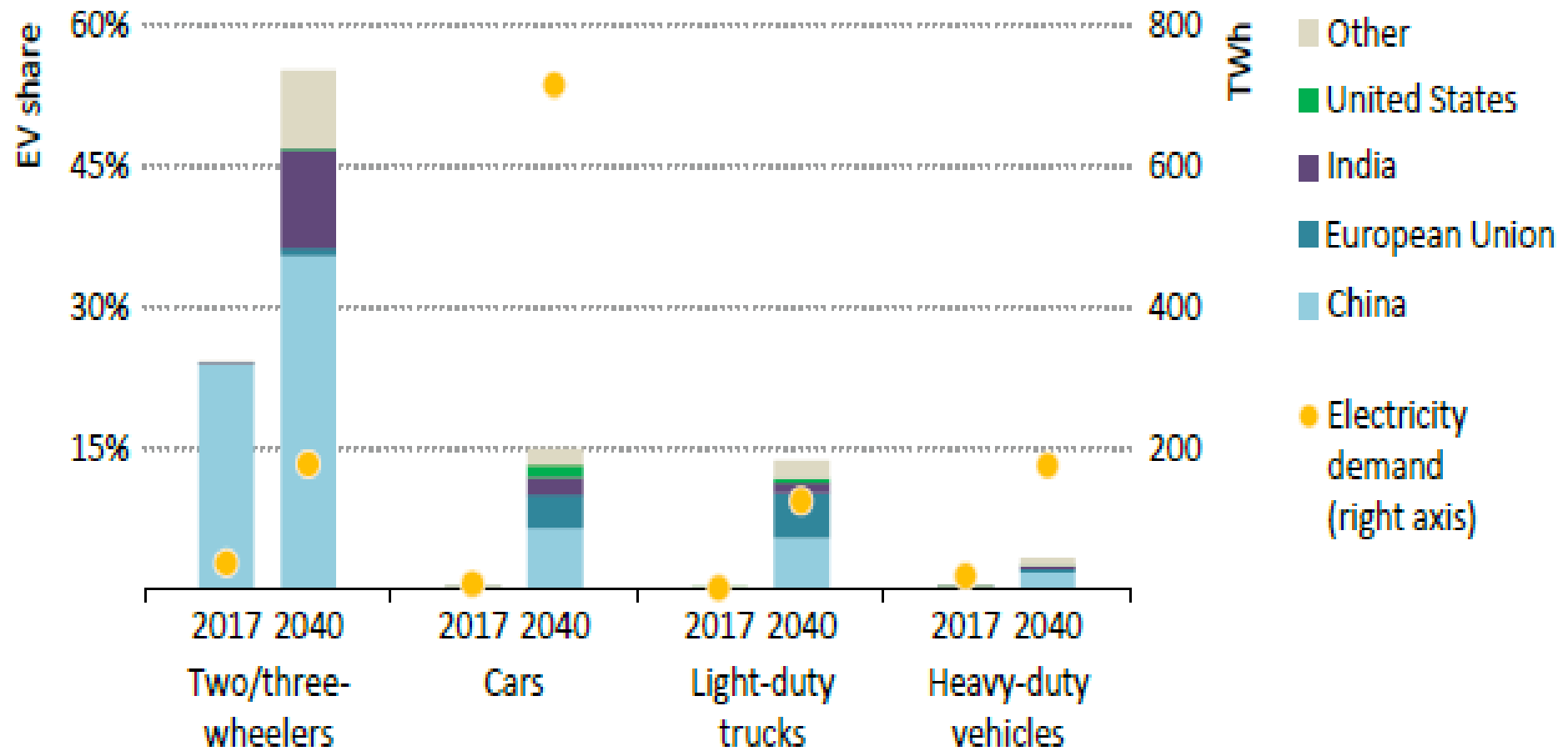
# Electricity Generation Expansion by Type



# Nuclear Capacity Evolution (2010-2040)



# Transport: China Leads the Electrification

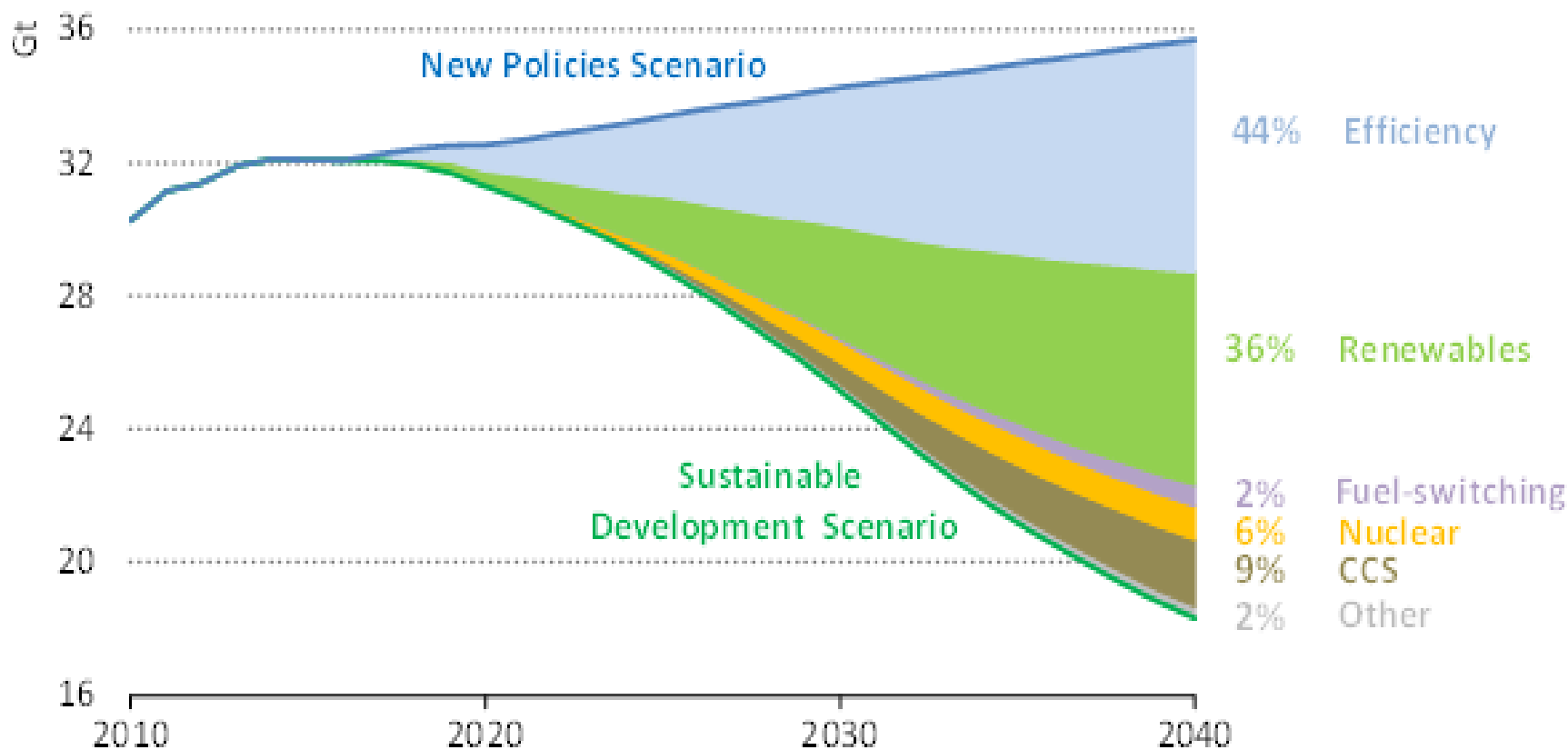


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# Decarbonization requirements for a sustainable scenario



- An average abatement 9 Gt of CO<sub>2</sub> per year is required between now and 2040
- The main 3 decarbonization wedges represent nearly 90% of the requirement
- Collaboration on carbon markets and regional trade



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