

# 1-3. APERC Gas Report 2023

**EGCFE 2024 Meeting**

23 May 2024 - Nanjing, China

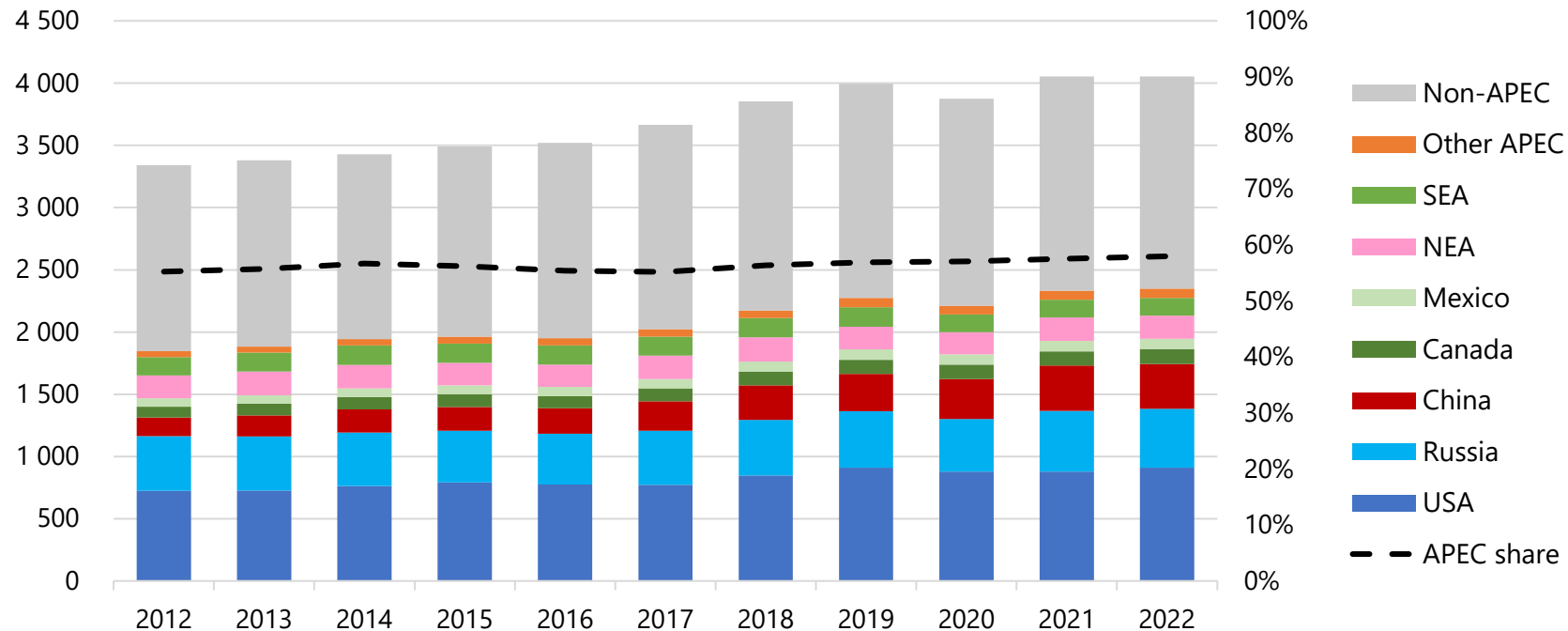
Rodrigo MARTINEZ PICAZO, Researcher, APERC



# World and APEC gas demand growth stagnated in 2022 due to supply disruptions and record-high prices

**Natural gas demand in APEC and the world, 2012-2022**

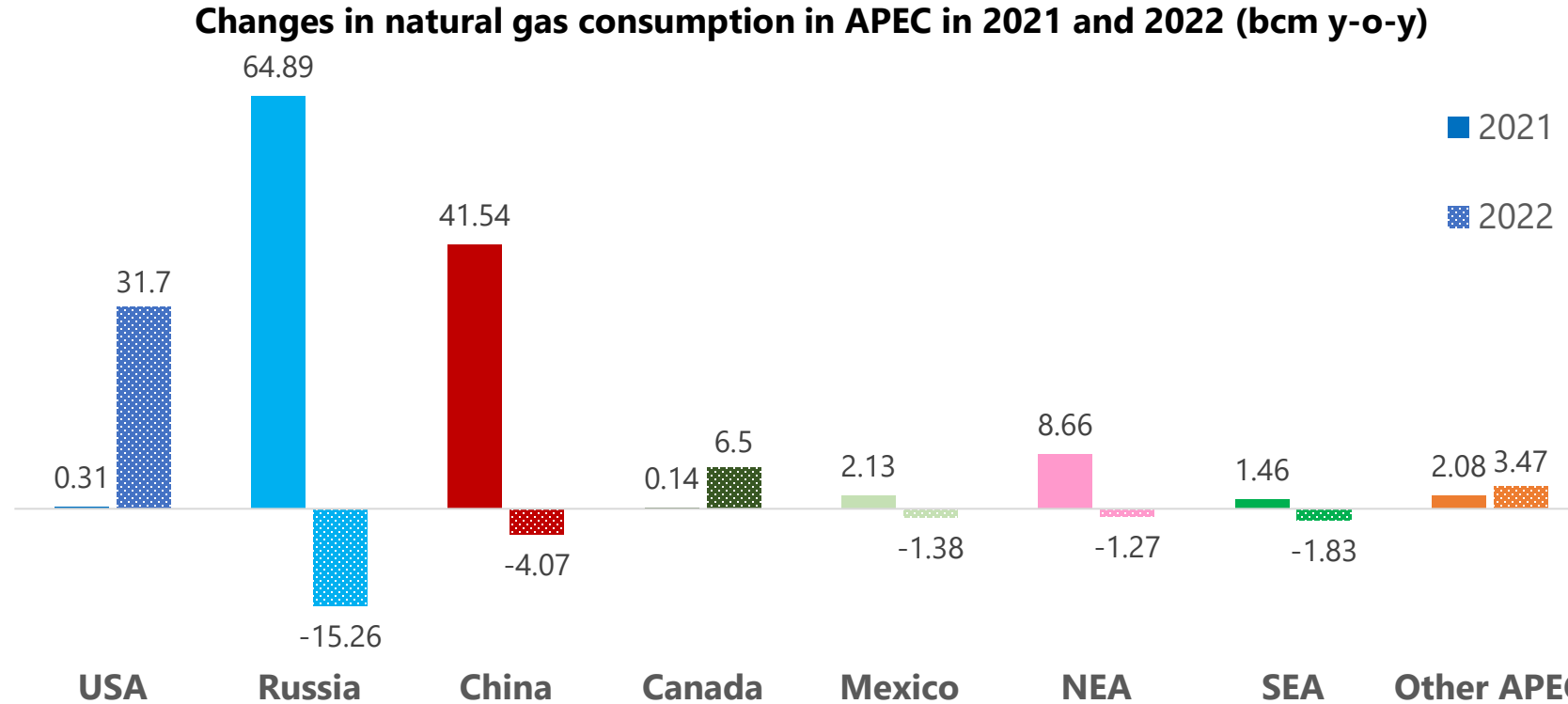
bcm



Source: CEDIGAZ

- World natural gas consumption grew by less than 0.1% in 2022 due to the tight gas market and record-high prices.
- APEC's natural gas consumption slowed and grew by only 0.7% in 2022.
- APEC accounted for 58% of the world's natural gas consumption.

# APEC gas consumption trends were mixed in 2022; growth in the USA and Canada was offset by demand reductions in other economies

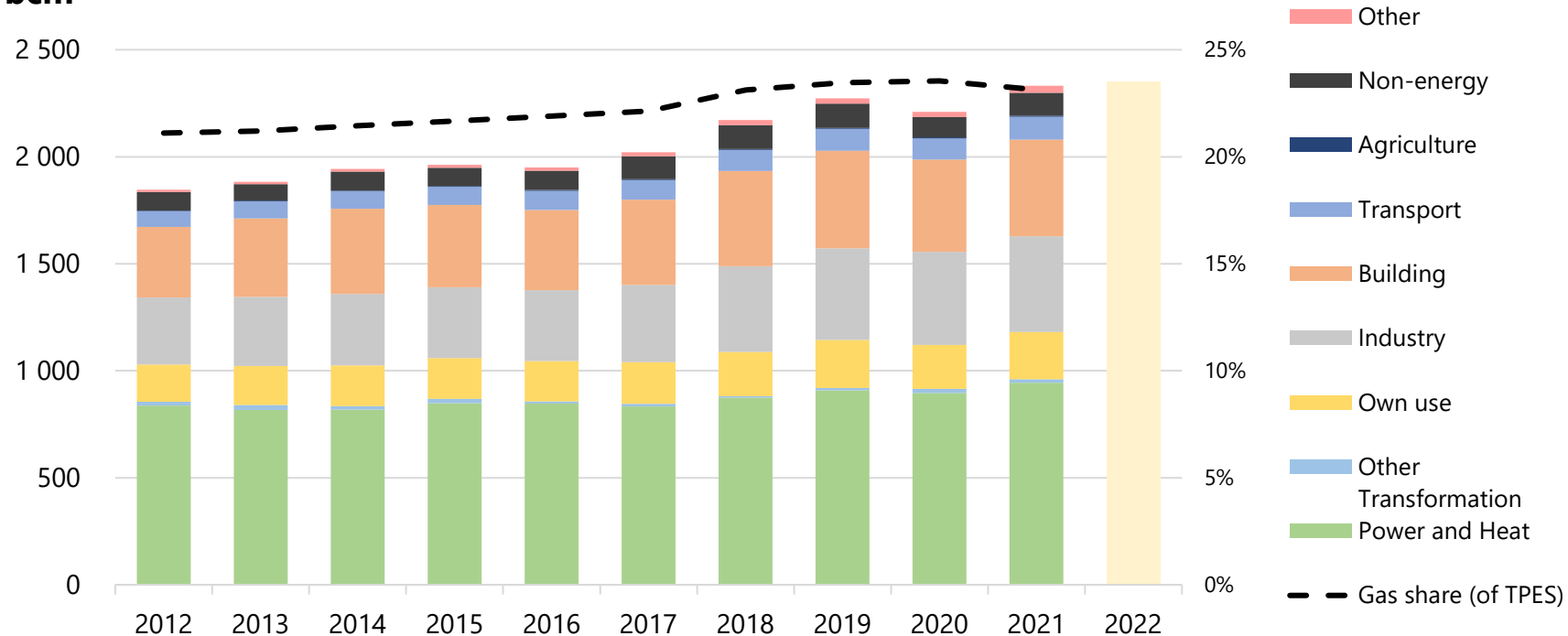


Source: IEA, CEDIGAZ

- The USA and Canada saw the largest increases in gas consumption in 2022.
- Russia's gas consumption suffered the effects of the contraction in economic output.
- China's gas consumption showed the second-largest decrease driven by slower economic growth, Covid-19, and price sensitivities.
- Importers in Southeast Asia responded to the record-high prices with lower gas consumption.

# Power and heat remained the largest gas consumer in APEC in 2021, the share of gas in TPES in the region has remained around 23% since 2019

**Natural gas consumption by sector in APEC, 2012-2022**  
bcm

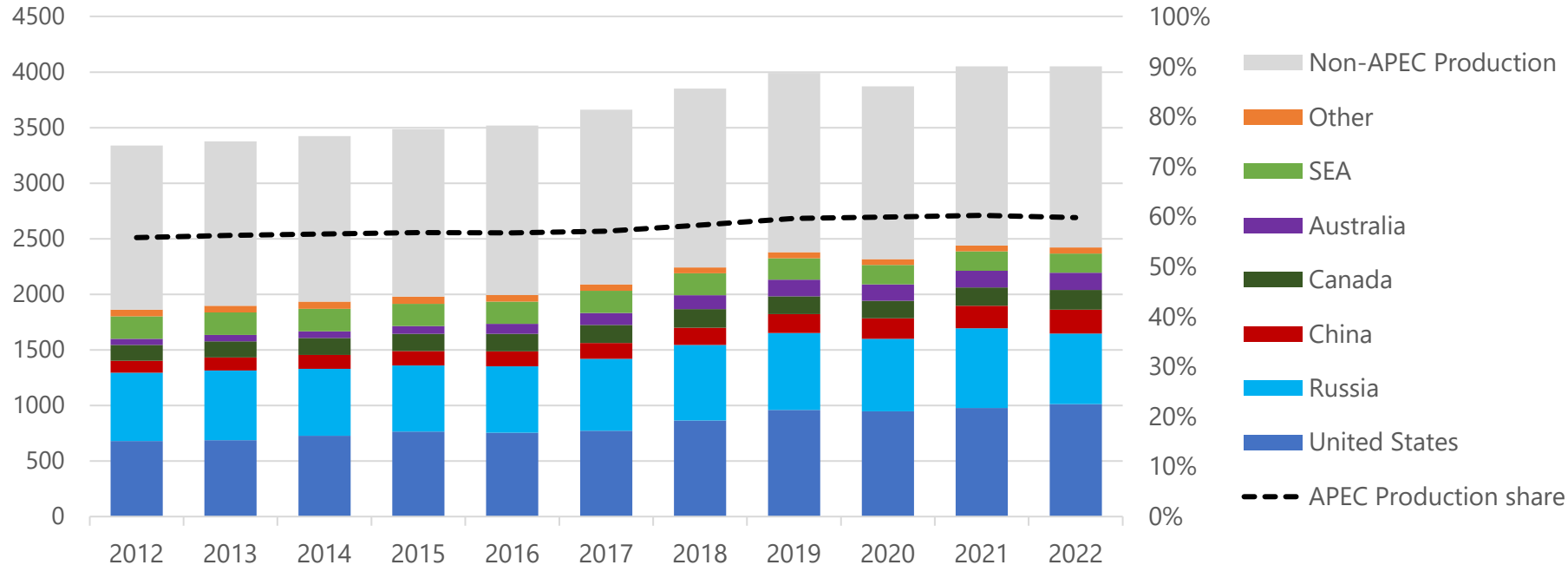


Source: CEDIGAZ; EGEDA; APERC analysis

- The power and heat sector accounted for 40% of total natural gas consumption in 2021.
- The industry and buildings sectors showed the largest natural gas consumption gains since 2012. China is the main contributor to gas consumption gains in the industry sector.

# World gas production was flat in 2022; gas production in APEC contracted by 0.7%

**Natural gas production in APEC and the World, 2012-2022**  
bcm

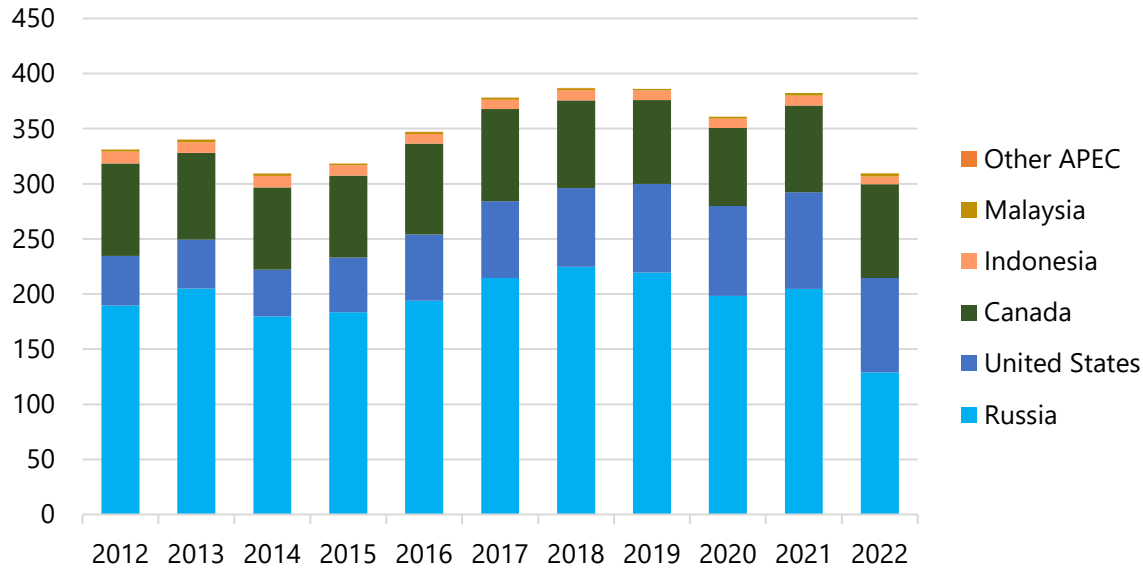


Source: CEDIGAZ

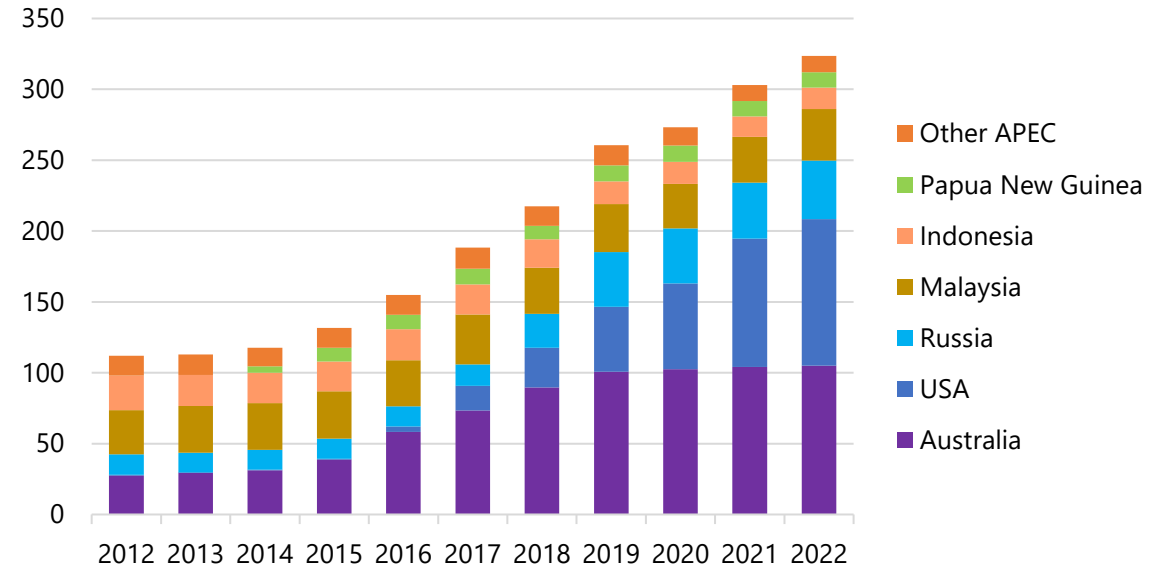
- APEC accounted for 60% of total natural gas production in the world in 2022.
- Natural gas production growth in 2022 was concentrated in the largest producers: the USA, China, Canada, and Australia.
- Natural gas production declines continued in most of Southeast Asia in 2022.

# Pipeline exports in APEC fell as Russia lost market share in Europe; U.S. LNG exports increased to partially offset the gap

Natural gas pipeline exports from APEC economies (bcm)



Natural gas LNG exports from APEC economies (bcm)



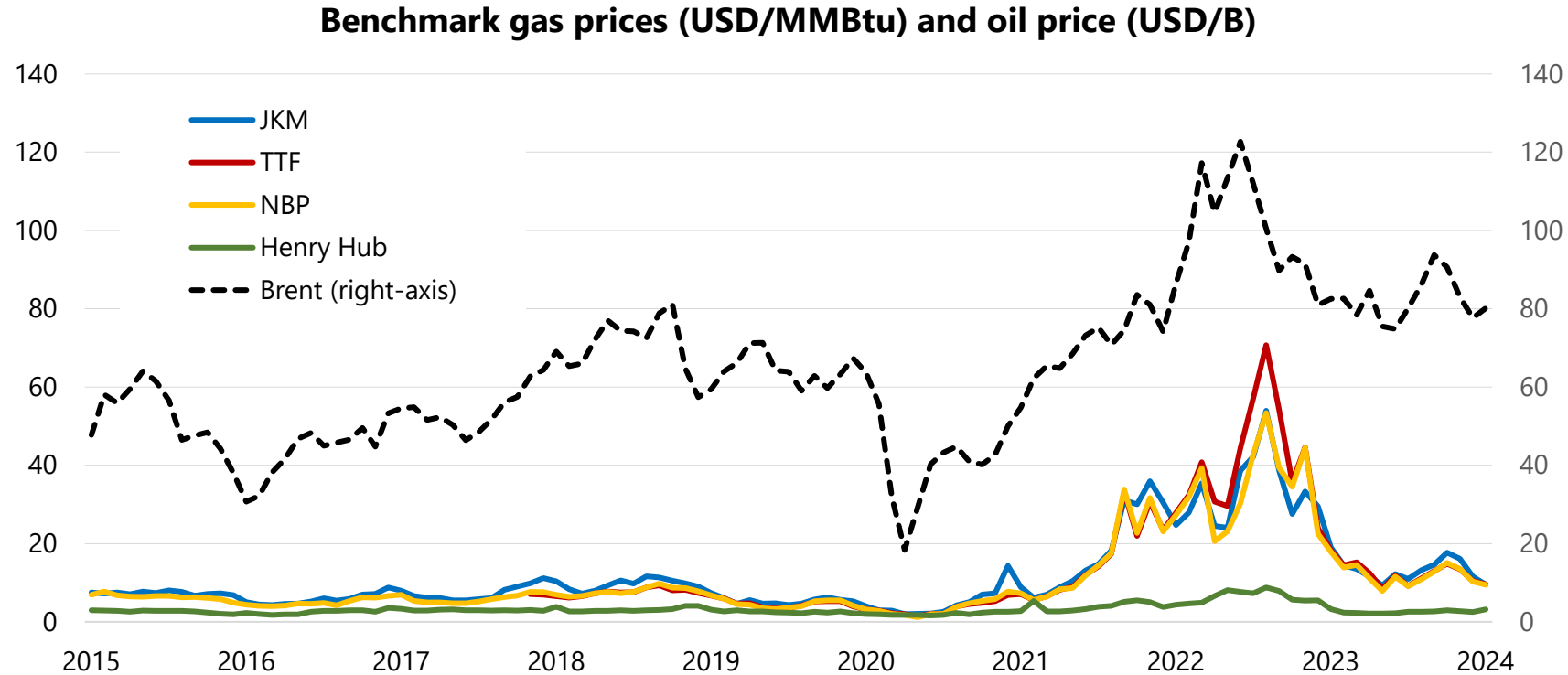
Source: CEDIGAZ

Source: CEDIGAZ

- Russia's pipeline exports decreased by 37% in 2022 as the economy partially lost access to the European market.
- The shutdown of Nord Stream represented the largest single drop in Russian exports.

- LNG exports from the USA increased by 14% in 2022.
- Europe became the largest buyer of U.S. LNG.
- In 2022, 69% of U.S. LNG exports were bound to Europe, while APEC-bound U.S. LNG cargoes represented 21%.

# The Russia-Ukraine crisis caused record-high gas prices in 2022. Supply disruptions and geopolitical challenges caused volatility in 2023



Source: Investing.com; EIA; National Customs Statistic

- Spot gas prices in the major natural gas price Benchmarks recorded the highest level in history in August 2022 due to the tight supply market derived from the Russia-Ukraine crisis.
- Spot prices in 2023 averaged 13.68 USD/MMBtu for the JKM benchmark. Volatility due to supply disruptions in the LNG value chain, as well as geopolitical challenges in the Middle East, caused prices to climb during Q2 and Q3.



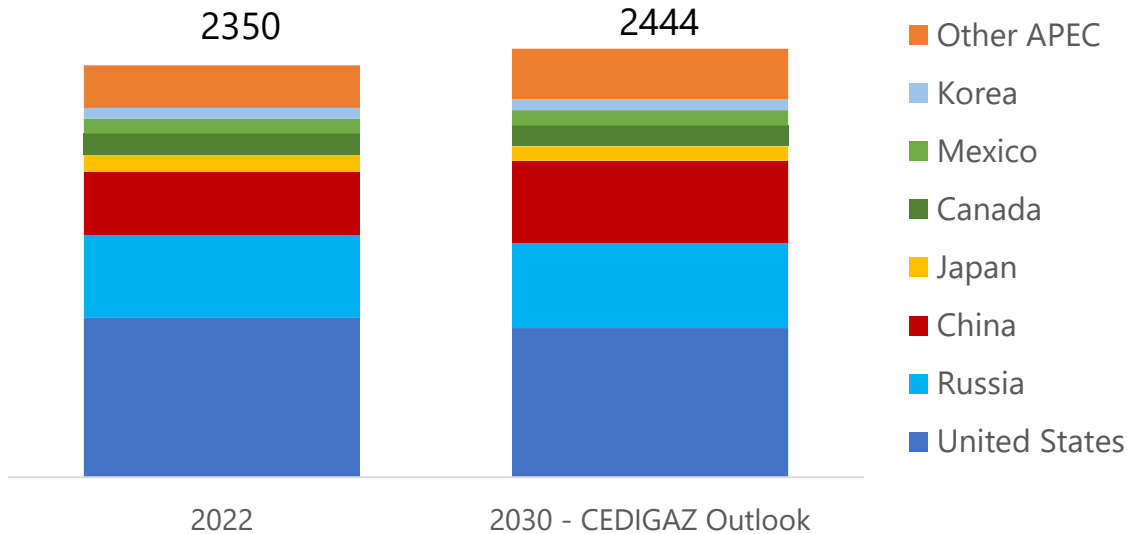
# Regasification capacity additions in Asia signal increasing LNG imports in the coming years

APEC economies	Regasification capacity additions
China	<ul style="list-style-type: none"><li>Approximately 94 Mtpa of additional regasification capacity is under construction and is expected to come online before the end of 2026</li></ul>
The Philippines	<ul style="list-style-type: none"><li>The AG&amp;P LNG import terminal (5 Mtpa), the first one in The Philippines, started operations in April 2023</li><li>Three additional regasification terminals are under construction with a combined capacity of 11.46 Mtpa.</li></ul>
Chinese Taipei	<ul style="list-style-type: none"><li>A new regasification terminal, Taoyuan LNG, with a capacity of 3 Mtpa is expected to be operational by 2025.</li><li>Expansion at the Yung-An terminal (2.6 Mtpa) is also under construction and is expected to be operational by 2027.</li></ul>
Thailand	<ul style="list-style-type: none"><li>Two new regasification terminals, Map Ta Phut 2 and Nong Fab LNG, started operations in 2022, increasing Thailand's regasification capacity by 15 Mtpa.</li></ul>
Viet Nam	<ul style="list-style-type: none"><li>The first regasification terminal, Thi Vai LNG I, with a capacity of 1 Mtpa began commercial operations in 2023.</li><li>Three projects amounting to 8.1 Mtpa of additional regasification capacity are currently under construction.</li></ul>
Singapore	<ul style="list-style-type: none"><li>A new regasification terminal, SLNG FSRU, with a capacity of 5Mtpa is currently under consideration to boost energy security.</li></ul>



# APEC medium-term outlook

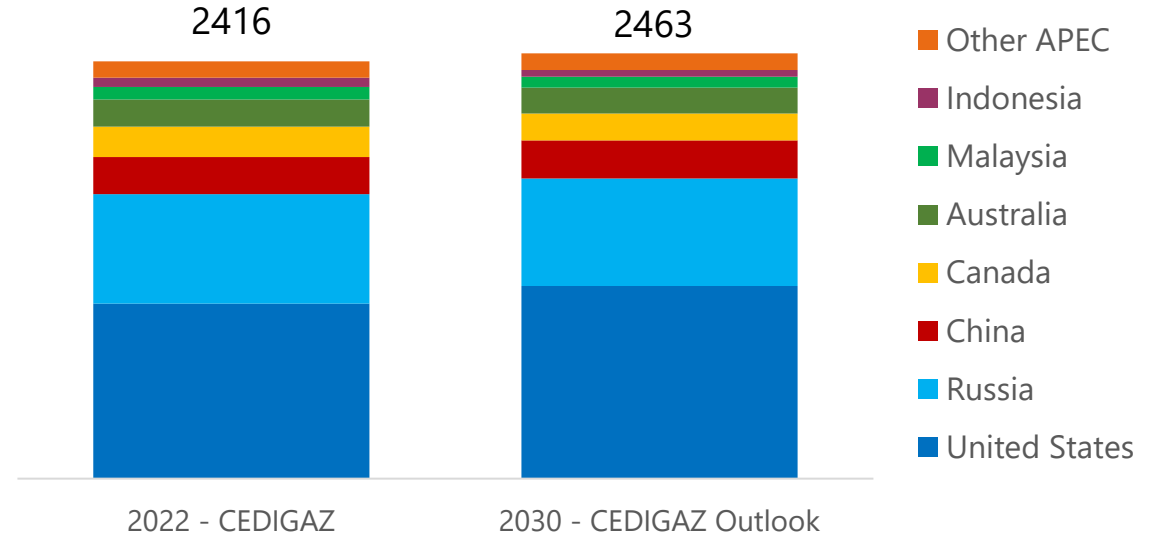
Natural gas demand outlook in APEC economies (bcm)



Source: CEDIGAZ

- Gas demand in APEC is forecasted to increase by 4% between 2022 and 2030.
- China is forecasted to continue driving gas consumption growth in the region.

Natural gas production outlook in APEC economies (bcm)

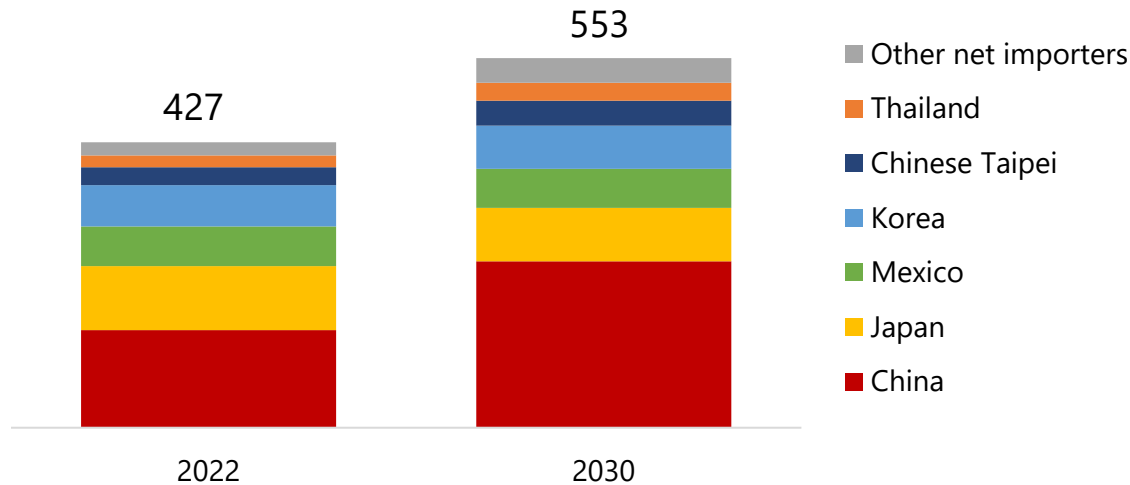


Source: CEDIGAZ

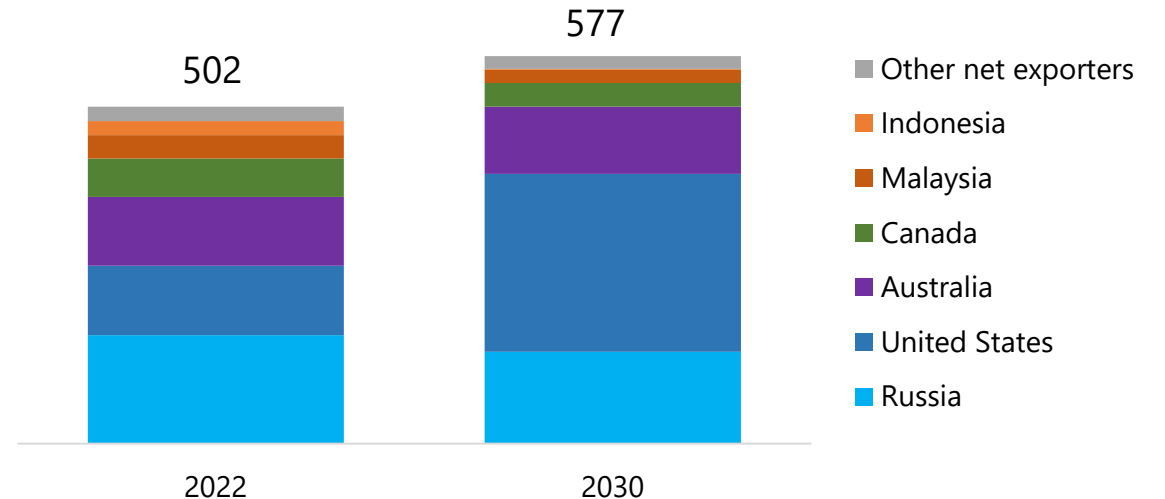
- Gas production in APEC is forecasted to increase by 1.9% between 2022 and 2030.
- Gas production in the USA is forecasted to continue driving production growth in the region.
- Gas production declines are forecasted for all the Southeast Asia region.

# APEC medium-term outlook (continued)

Net natural gas imports outlook in APEC economies (bcm)



Net natural gas exports outlook in APEC economies (bcm)



Source: CEDIGAZ

- Net natural gas imports in APEC are forecasted to grow by 30% between 2022 and 2030.
- Most of the growth in net gas imports is forecasted to happen in China and Southeast Asia.

Source: CEDIGAZ

- Net natural gas exports in APEC are forecasted to grow by 14% between 2022 and 2030.
- The USA is forecasted to drive net natural gas exports in the region. Current discussions regarding gas export permit approvals to non-FTA economies might cap U.S. exports.

## Key takeaways

- The Russia-Ukraine crisis impacted the global gas market. Tight supplies and record-high prices hampered global natural gas demand growth.
- Gas demand in the APEC region slowed in 2022 with year-over-year growth of only 0.7%.
- The slow APEC demand growth was the result of mixed consumption trends in the region.
- The power and heat sector remains the primary gas consumer in the APEC region. The industry and building sectors showed the largest gains in gas consumption during the last decade.
- Natural gas production growth in 2022 was concentrated in APEC's largest producers: the USA, China, Canada, and Australia. Gas production continued to decline in most of Southeast Asia.
- Pipeline gas exports in APEC declined as Russia partially lost access to the European market in 2022. The USA drove LNG export growth with an increase in exports to Europe.
- Spot prices hit record highs in 2022. Prices moderated in 2023, but volatility persisted.
- Recent developments in regasification infrastructure signal a higher reliance on gas imports in China and Southeast Asia.

**Thank you.**

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