

**The 5th International Conference "Risk Management in Energy - 2022"**



# **The role of natural gas in satisfying energy needs: Asia Pacific focus**

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**22 September 2022**

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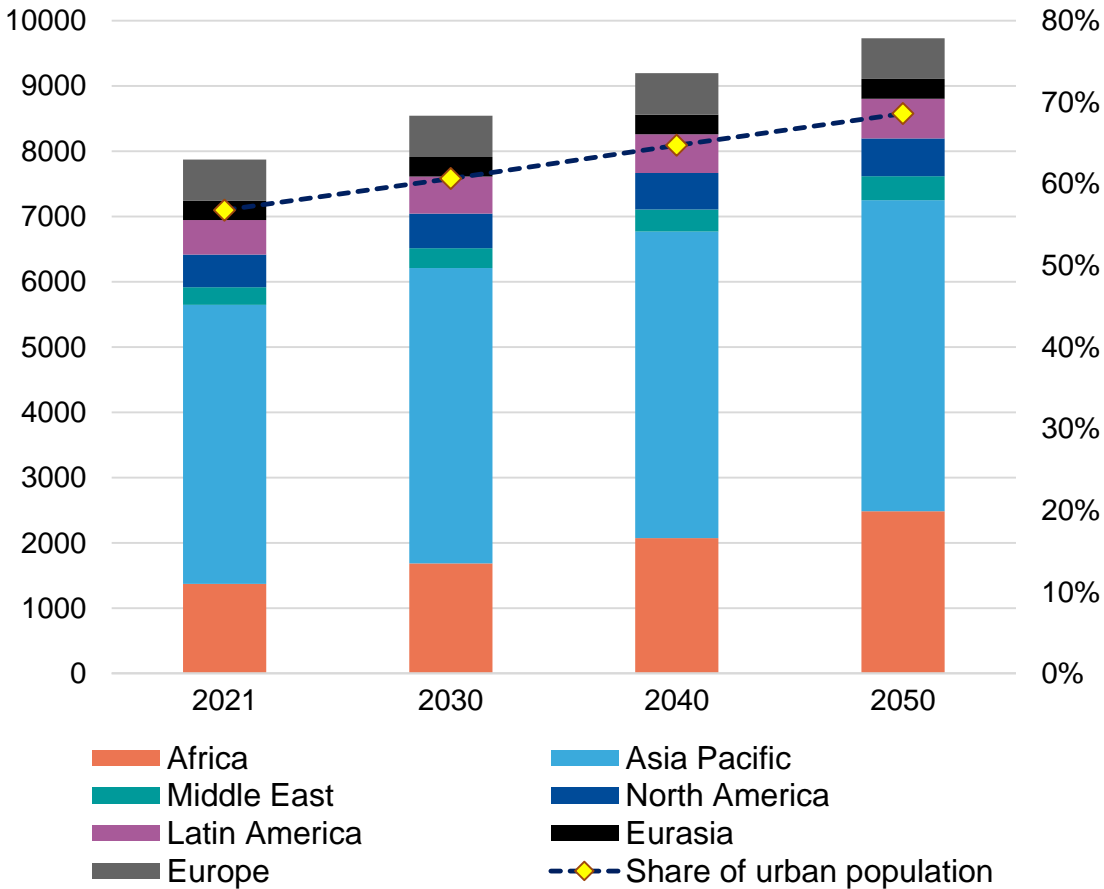
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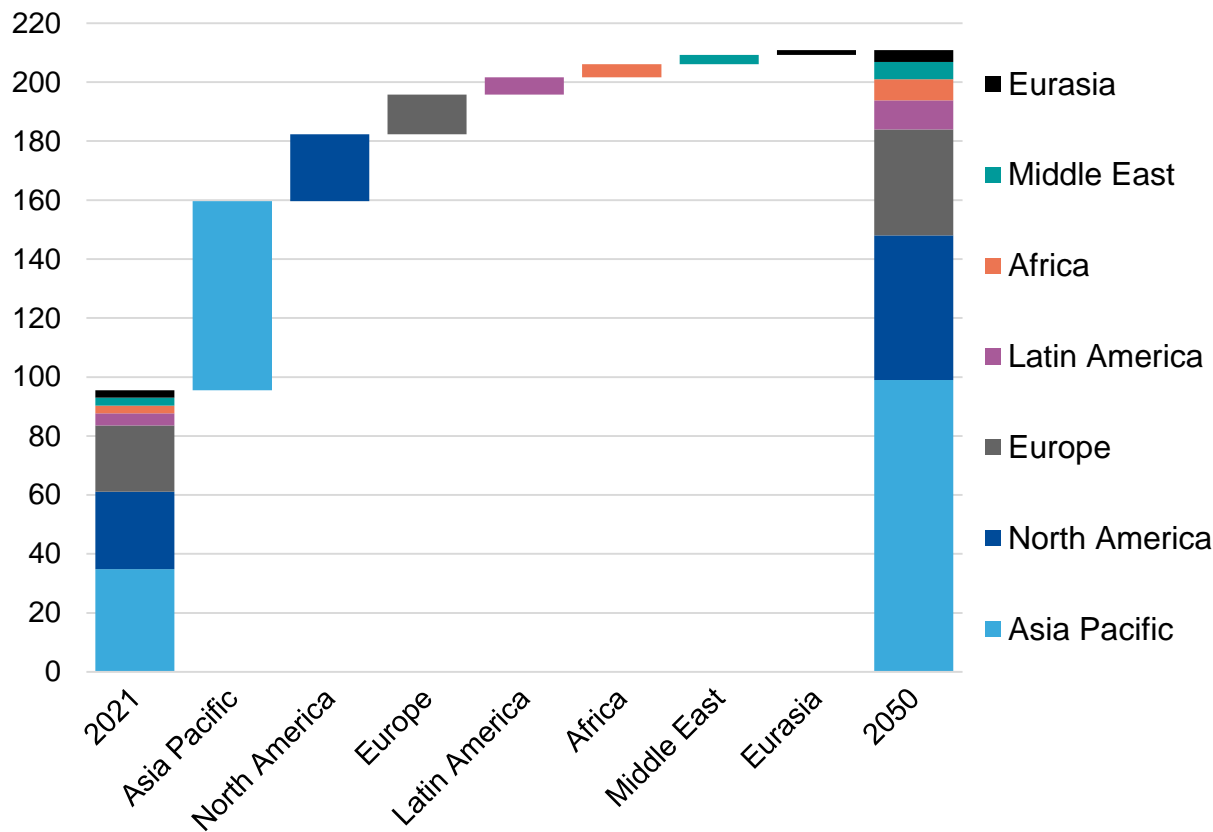
1. The long-term outlook for energy and natural gas demand.
2. Natural gas in the Asia Pacific region: strong potential for demand expansion.

# Global population and GDP growth

Global population by region (million people)  
and urbanisation (%)



GDP growth composition by region to 2050  
(real trillion USD)



Source: GECF GGM

# Key global policy orientations

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**Security of supply at the top policy agenda:** policy push for developing domestic energy sources; diversifying energy imports; supporting carbon-free options.



**Natural gas:** clean air policy, coal-to-gas switching, support to upstream developments and LNG supply chains (including through small-scale solutions).



**Energy transition:** acceleration in favor of renewables; a struggle for supremacy in the multitrillion dollar green economy.



**Coal:** short- to mid-term – relaxation of environmental restrictions; long-term – implementation of measures (e.g. carbon prices, emissions standards) reducing its role and environmental impacts.



**Nuclear:** renewed policy support to secure supply and meet decarbonisation requirements.



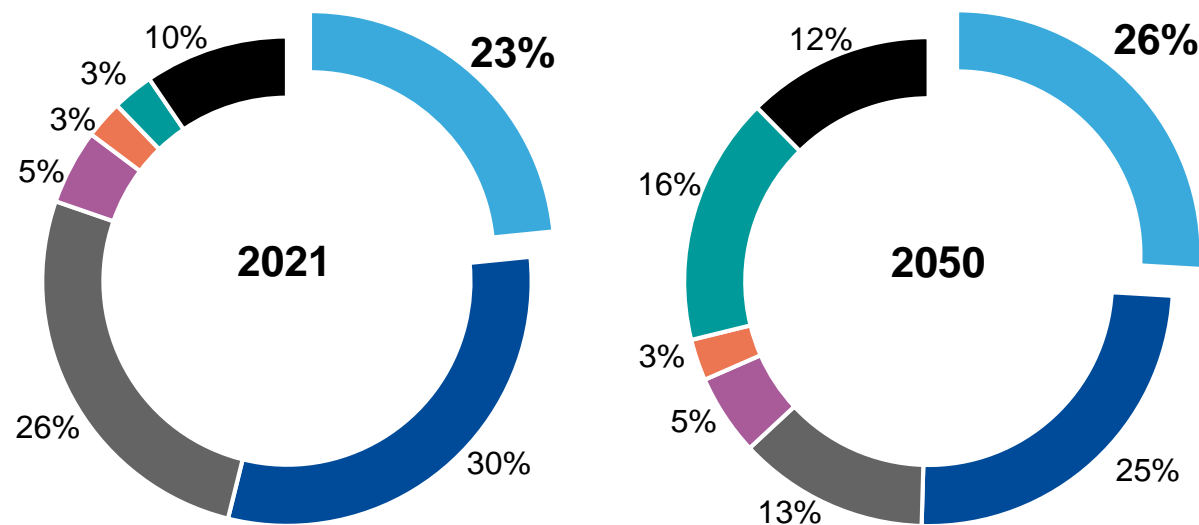
**Hydrogen:** strengthened support to low-carbon hydrogen; blue hydrogen will play a role in scaling up the market.



**CCS/CCUS:** an efficient way in decarbonising energy system.

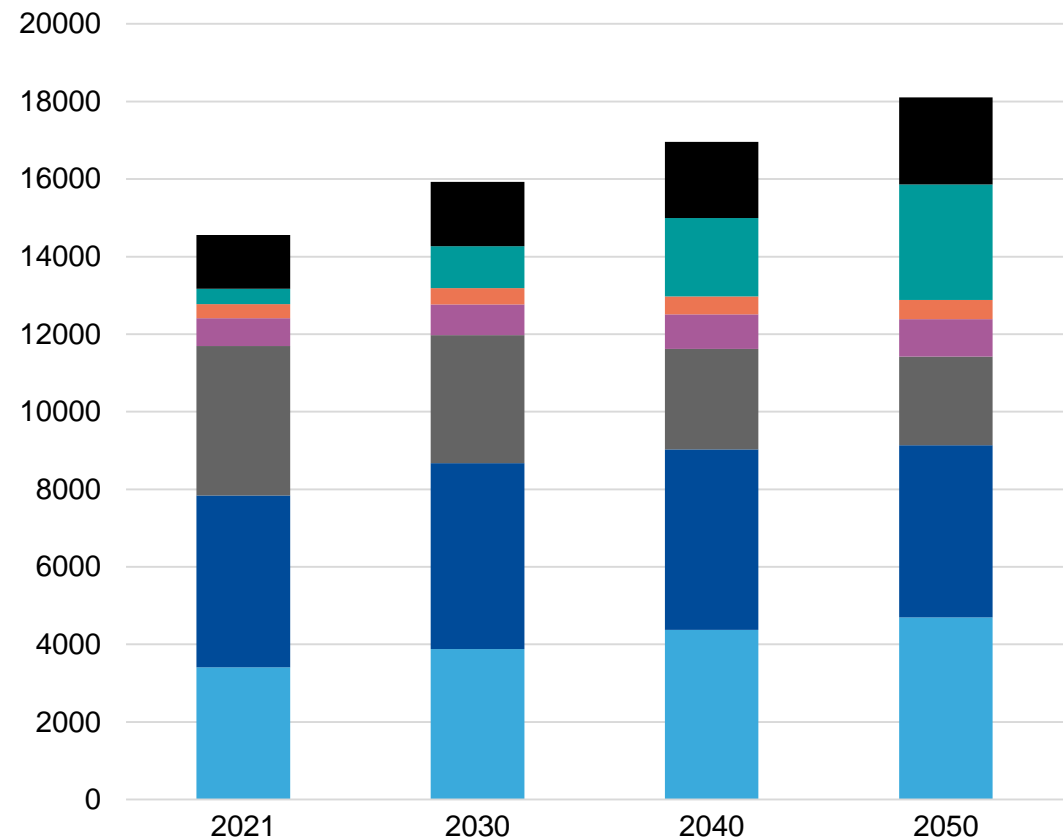
# Pivotal role of natural gas in satisfying world energy needs

Global energy mix evolution (%)



- Natural gas will increase its share in the global energy mix from 23% today to 26% in 2050.

Primary energy demand trends by fuel (Mtoe)



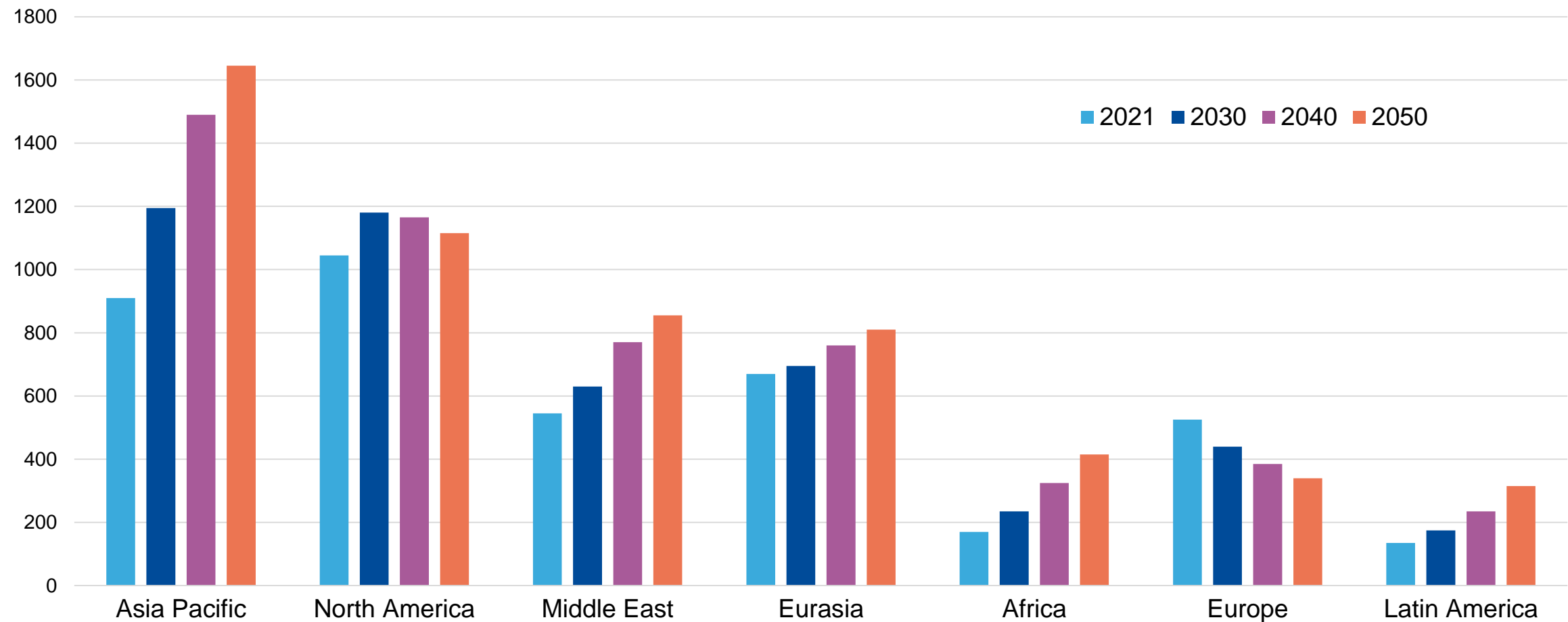
■ Natural gas ■ Oil ■ Coal ■ Nuclear ■ Hydro ■ Renewables ■ Bioenergy

Note: Bioenergy includes traditional biomass and modern bioenergy.  
Renewables include solar, wind, tidal and geothermal energy.

Source: GECF GGM

# Natural gas demand will rise across regions with Asia Pacific in the lead

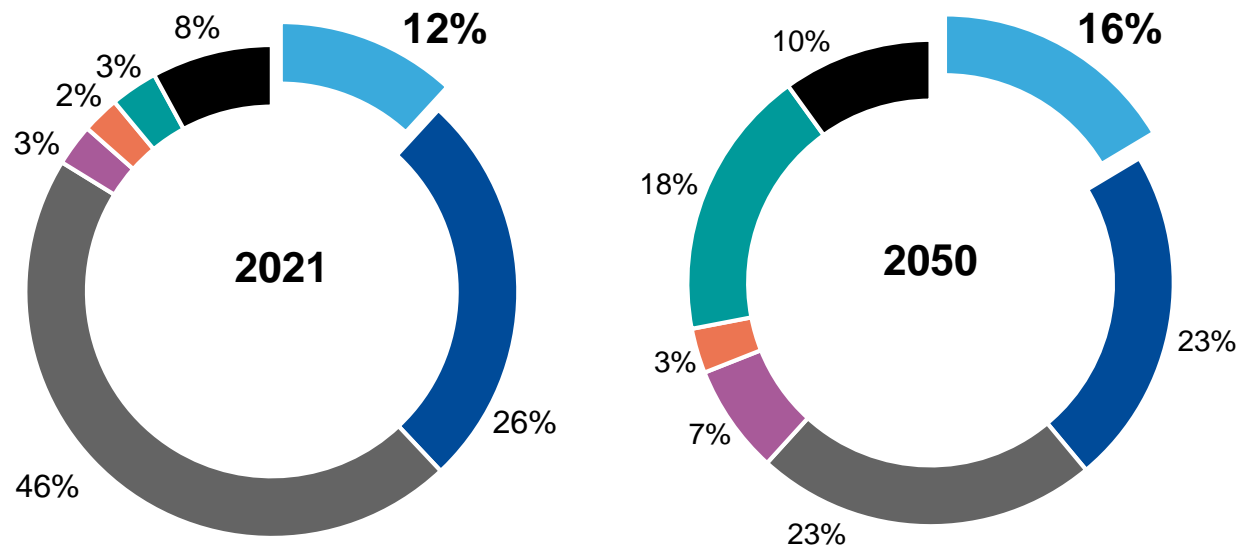
Global natural gas demand trends by region (bcm)



Source: GECF GGM

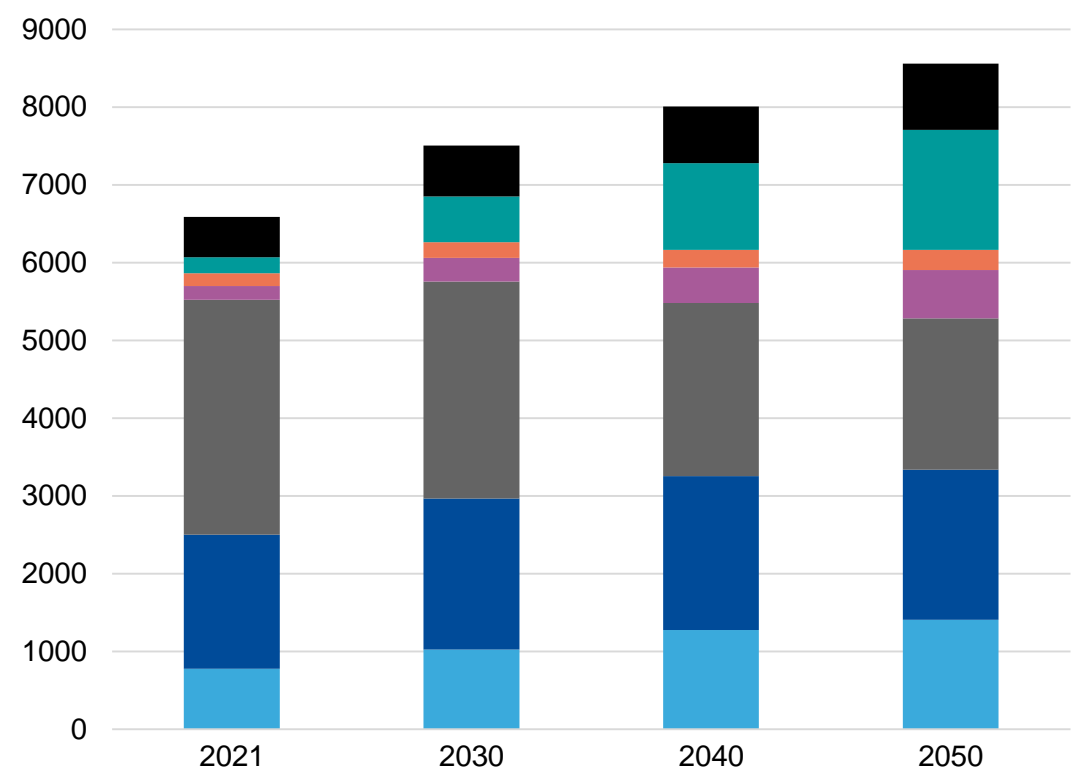
# Natural gas is set to play a frontline role to sustain economic growth in Asia Pacific

Asia Pacific energy mix (%)



- At present, coal meets 46% of the total energy needs in the region.
- The share of natural gas in the regional energy mix is projected to reach over 16% by 2050.

Primary energy demand trends by fuel (Mtoe)



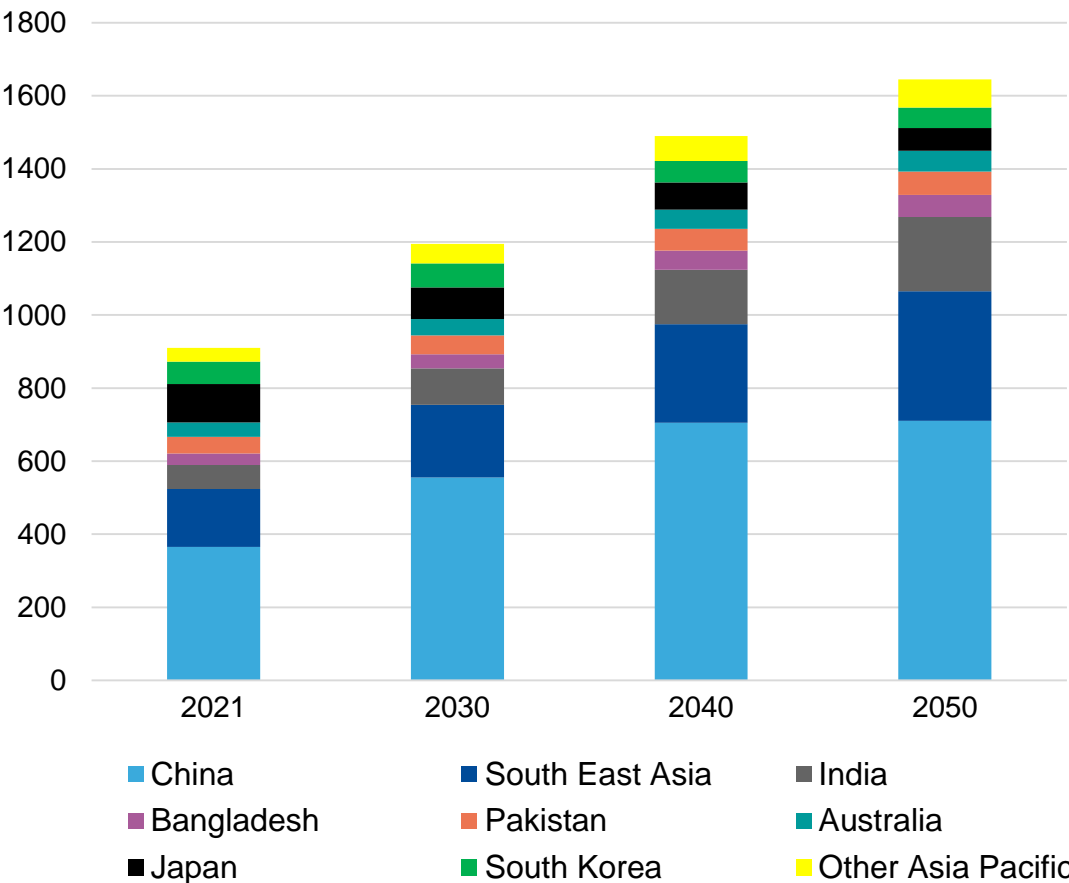
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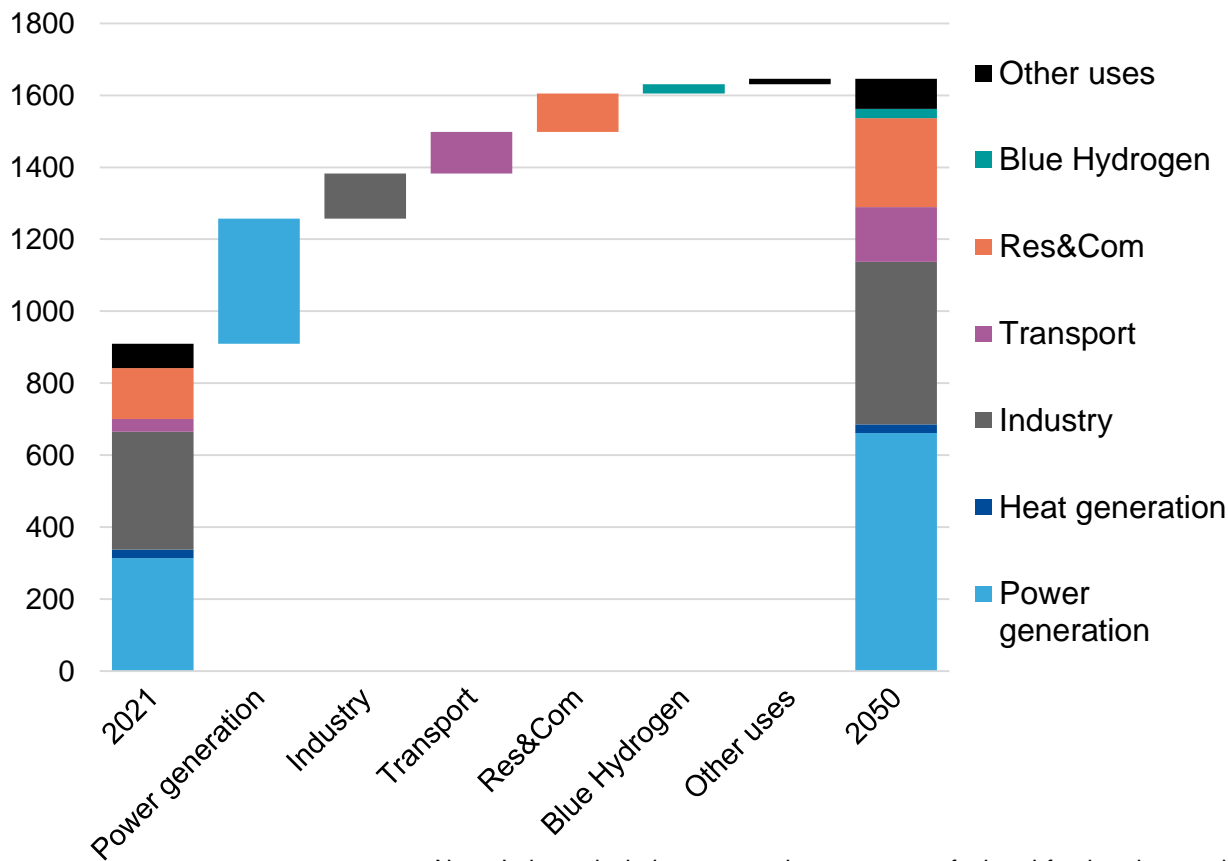
Source: GECF GGM

# Strong potential for natural gas demand expansion

Natural gas demand trends in Asia Pacific (bcm)



Sectoral contribution to the growth (bcm) over the period 2021-2050



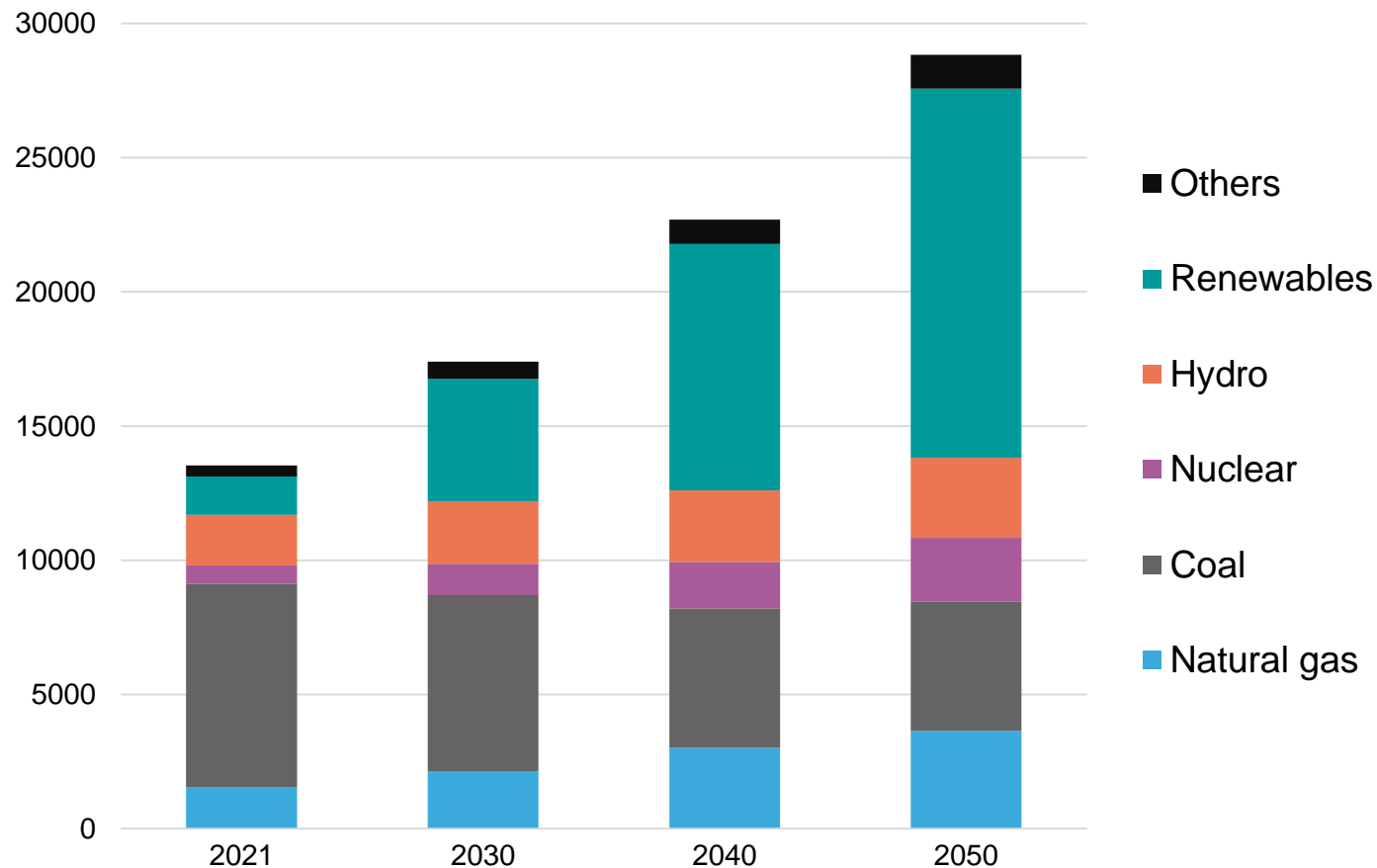
Note: Industry includes gas used as an energy fuel and feedstock as well as for grey hydrogen generation and the production of liquid fuels. Transport includes road transport and marine bunkers. Other uses include gas demand for energy industry own use, for rail and pipeline transport.

Source: GECF GGM

# Shift towards low-carbon sources for power generation in Asia Pacific

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Asia Pacific power generation by fuel (TWh)



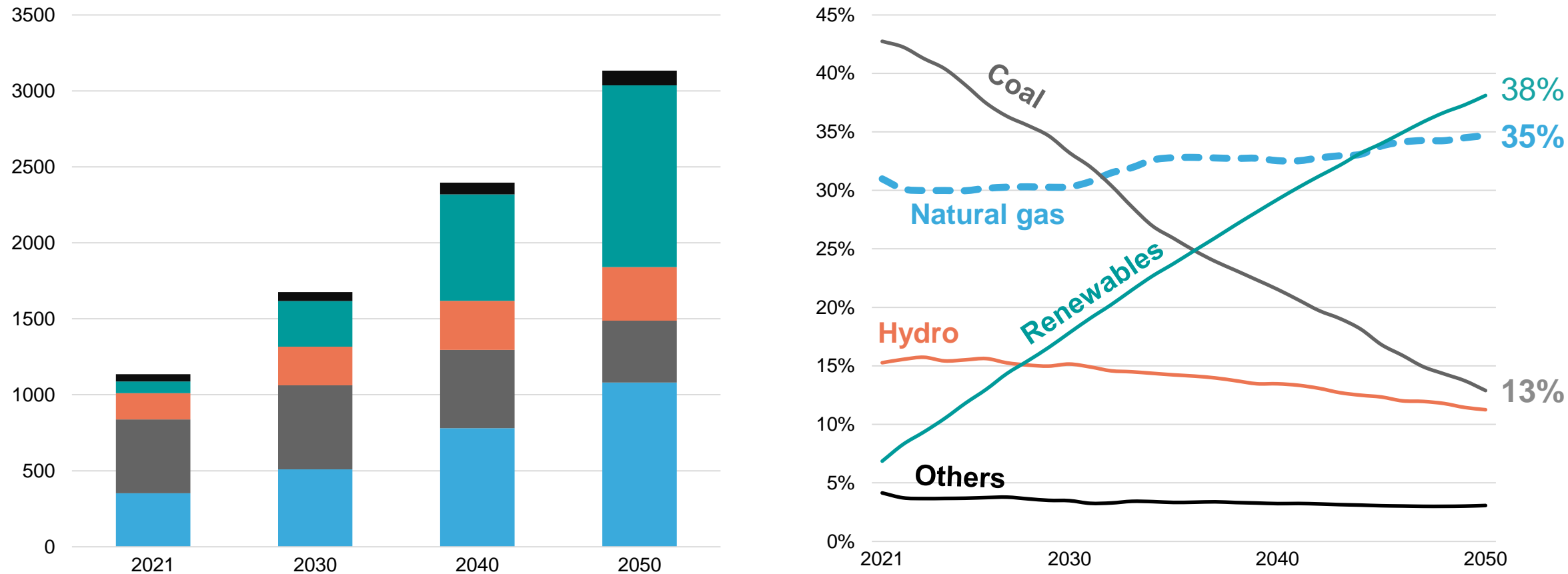
- Gas-fired generation will meet around 14% of rising electricity needs in the region.
- In 2050, natural gas and renewables together will make up 60% of the regional power generation mix.
- The share of coal will drop from 56% in 2021 to 17% in 2050.

Source: GECF GGM

Note: Others include oil, bioenergy and hydrogen.

# Natural gas in South East Asia's power sector is expected to overtake coal before 2035

South East Asia power generation by fuel (TWh) and fuel shares (%)

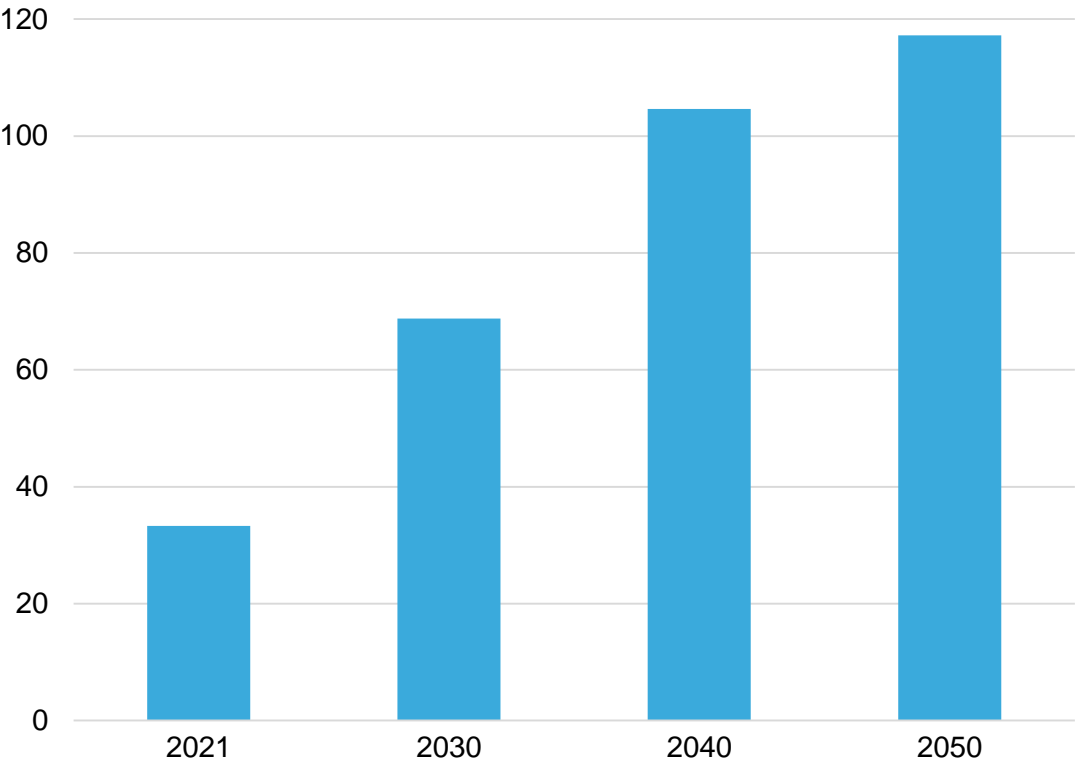


Source: GECF GGM

Note: Others include oil, bioenergy and hydrogen.

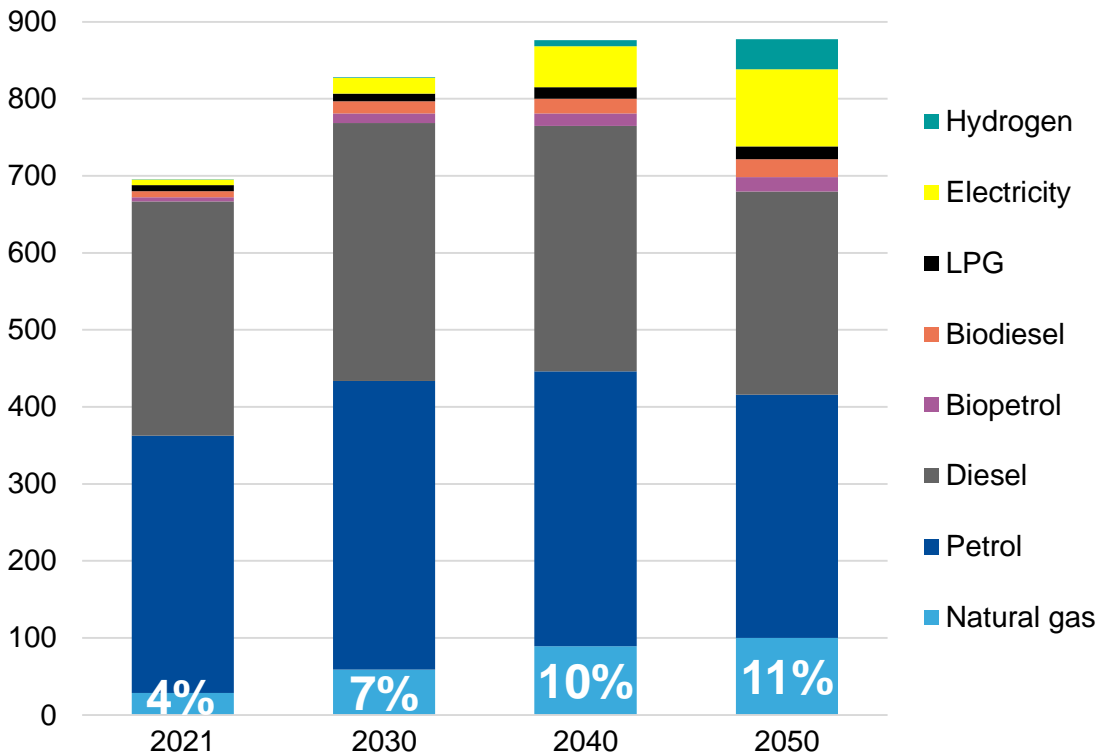
# Natural gas is a promising alternative in road transport in Asia Pacific

Natural gas demand in road transport in Asia Pacific (bcm)



- The rise in demand will be strong and driven by India and China.

Road transport demand by energy carriers in Asia Pacific (Mtoe)



- The share of natural gas in the regional road transport market will rise to 11% over the outlook period.

Source: GECF GGM

# Conclusion

- Natural gas will continue to play a crucial role in sustainable development, being a key enabler of the energy transition, along with renewables; its share in the global energy mix will rise from 23% today to 26% by 2050.
- The resilient outlook for natural gas is underpinned by policies on air quality improvements, coal- and oil-to-gas switching, and the development of CCUS.
- The potential for natural gas demand increase in Asia Pacific is enormous, as this fuel is the ideal solution available currently to displace coal and support environmental goals, while remaining a pillar of the energy transition strategy for the majority of countries in the region.
- Along with traditional sectors, such as power generation and industry, the transport sector will emerge as a promising area of natural gas demand expansion in Asia Pacific.



**Thank You!**

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