European Energy Crisis

25th National Conference "Energy and Development 2021"

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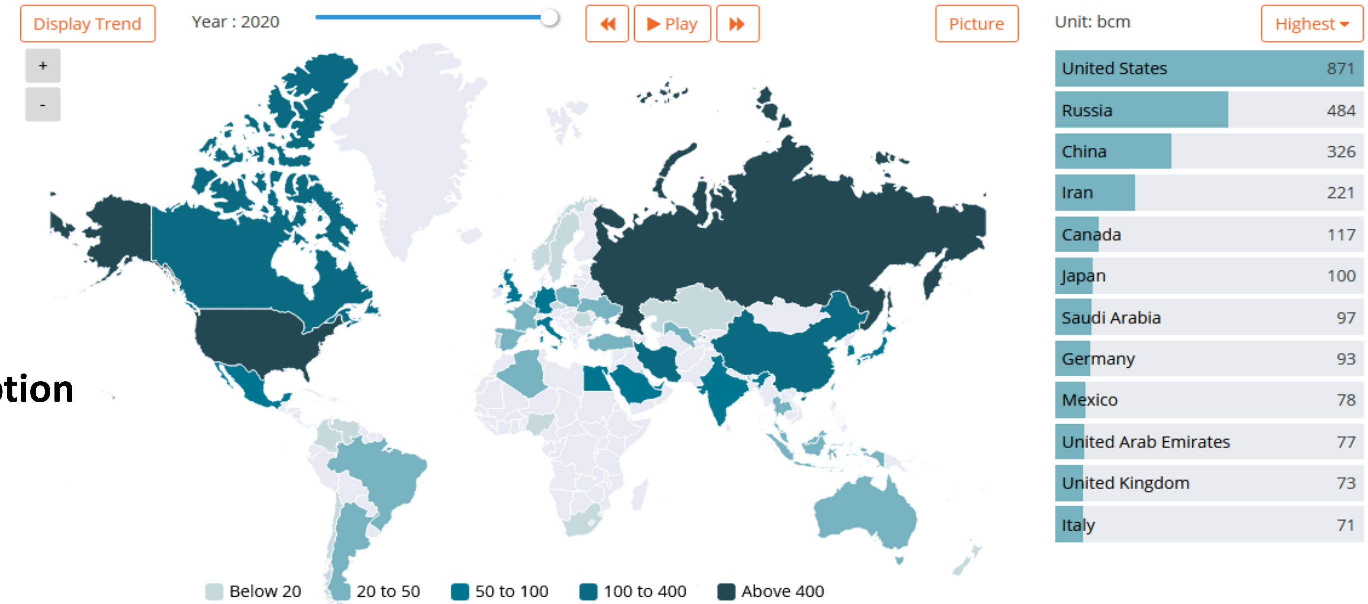
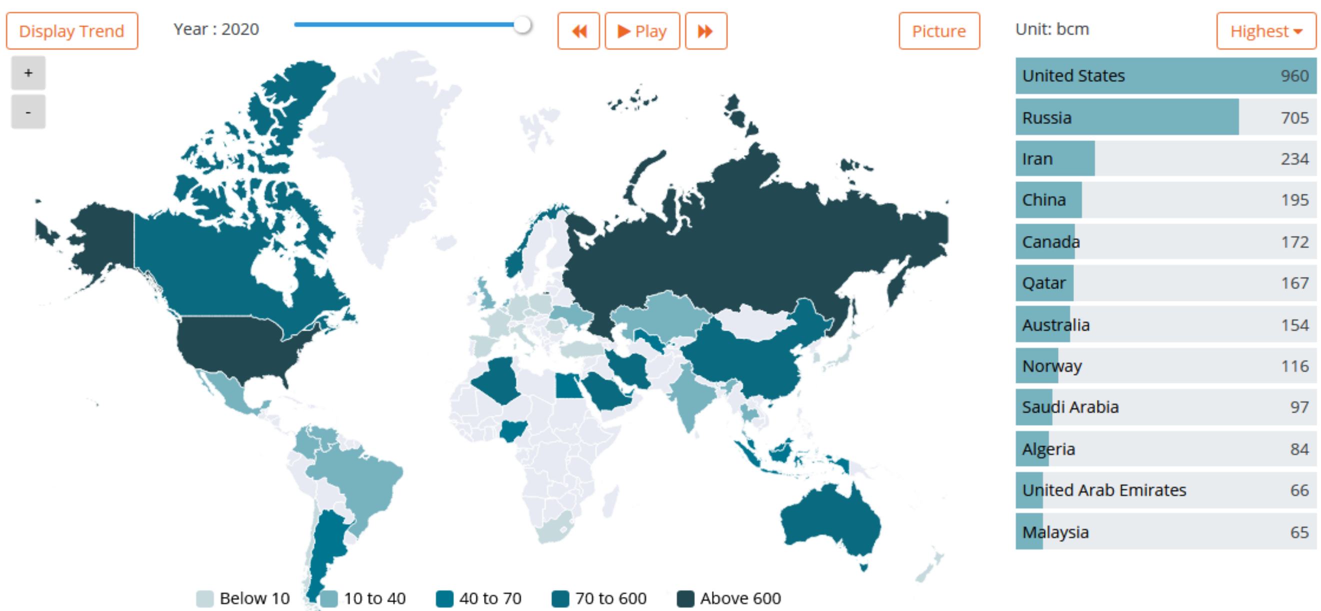
Global Natural gas Consumption & Production (2020)

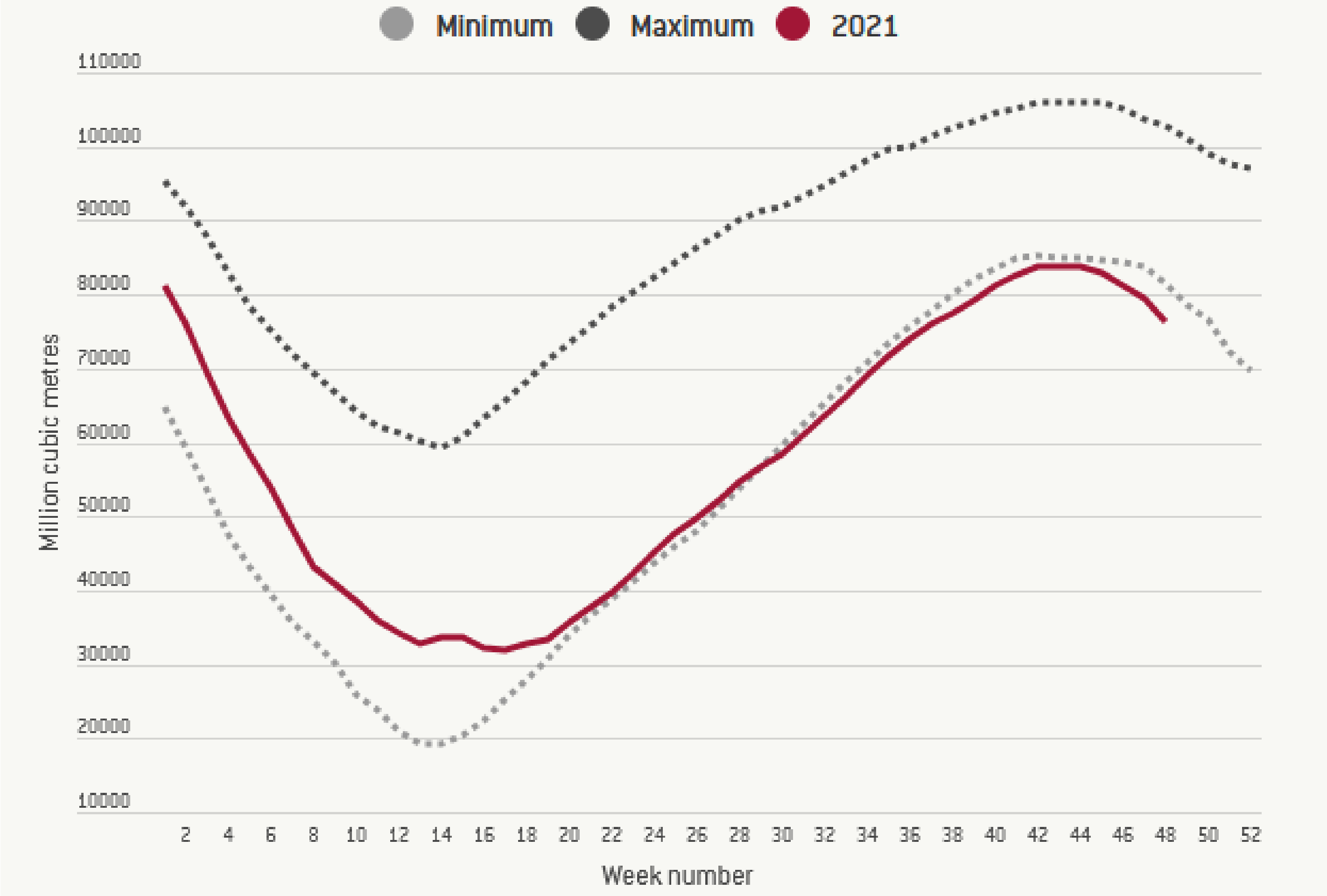
Consumption



Production



EU Gas Storage (Last update: 25/11/2021)

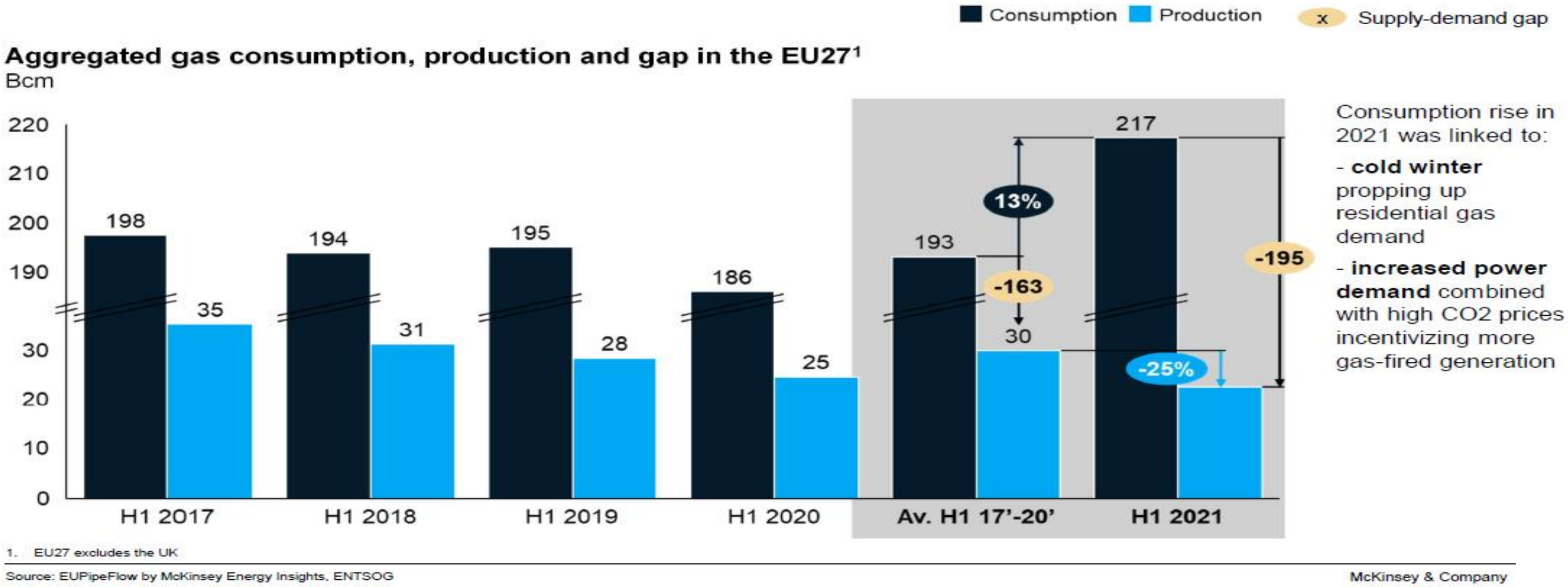


Source: AGSI: https://agsi.gie.eu/#/

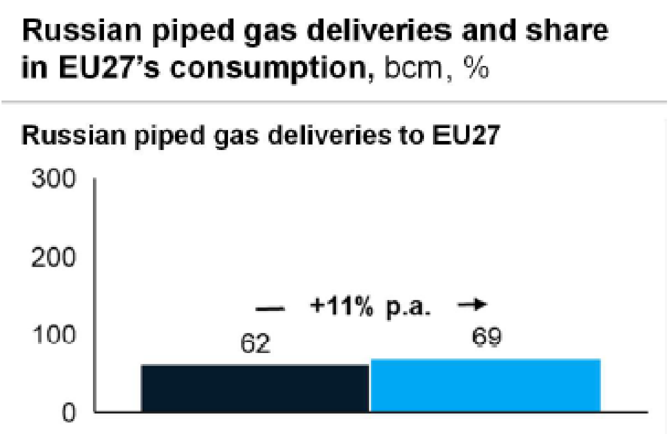
Note: Minimum and Maximum values are calculated from the period 2015-2020.

Additional Gas import needs in European Market due to decarbonization

H1 2021 saw a widening of the gas import gap by ~32 bcm with stronger European consumption and a decline in production



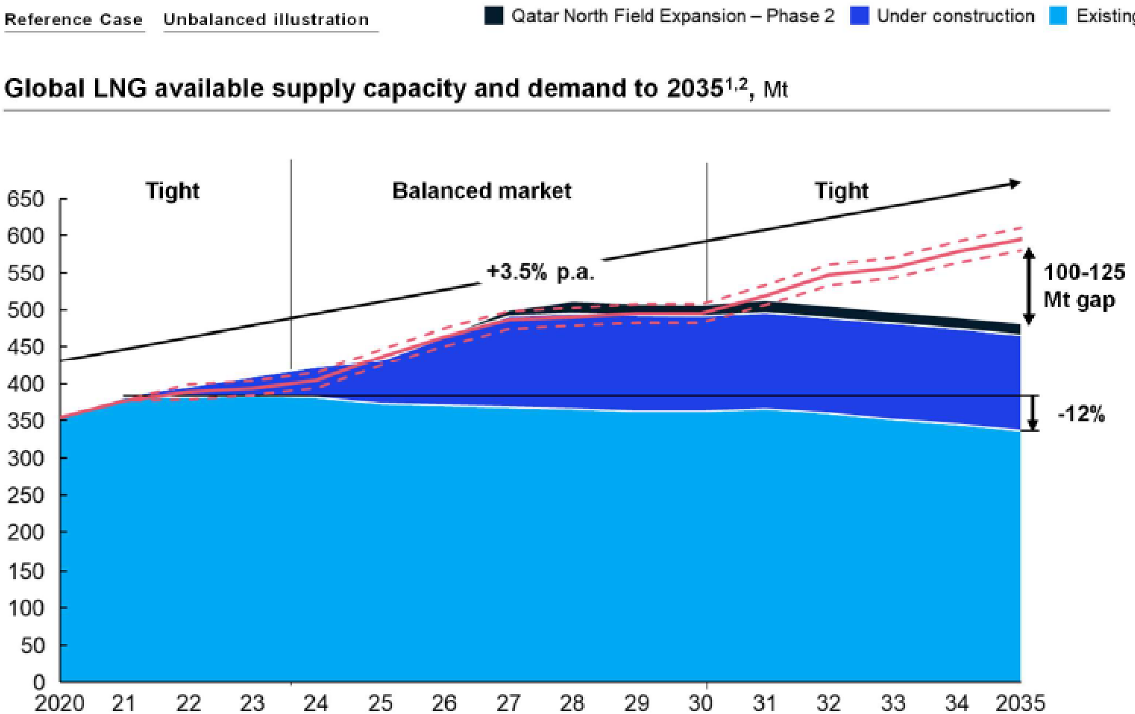
H1 2021 Russian piped gas deliveries higher than H1 2020 by ~7 bcm



Balances have significantly tightened throughout the next decade delays with ~100-125 Mtpa of new capacity needed by 2035

Reference Case Unbalanced illustration

Global LNG available supply capacity and demand to 2035[1,2], Mt



1. Qatar LNG expansion project - Stage 2 (formally still pre-FID);
2. Supply from existing projects assumes 90% availability

Source: McKinsey Energy Insights;Gas Intelligence Model by McKinsey Energy Insights

Key highlights

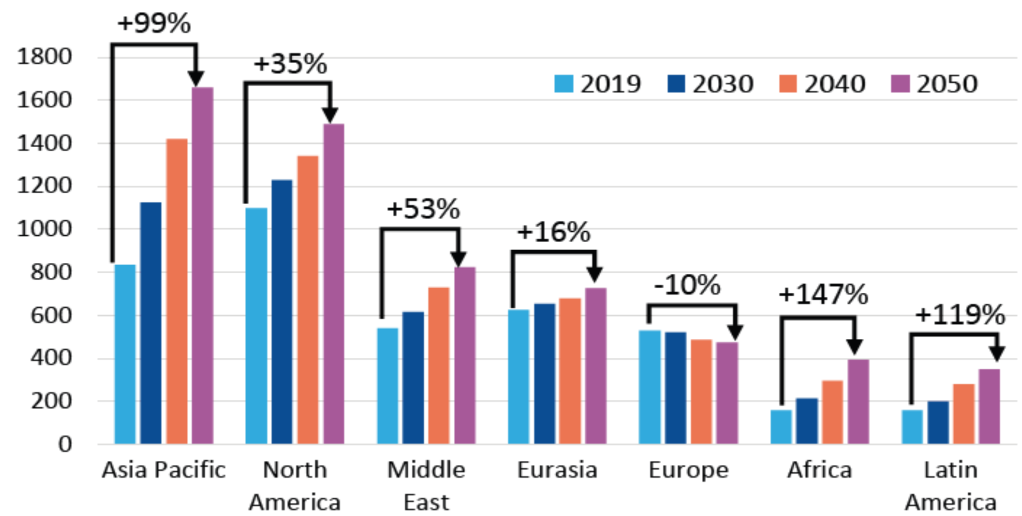
High storage withdrawals over a cold 2020/21 winter, supply outages and a rapid rebound in LNG demand **have led to an accelerated tightening of the LNG market**

The market is expected to **remain tightly balanced throughout the 2020s** with no major periods of supply overhang or shortage

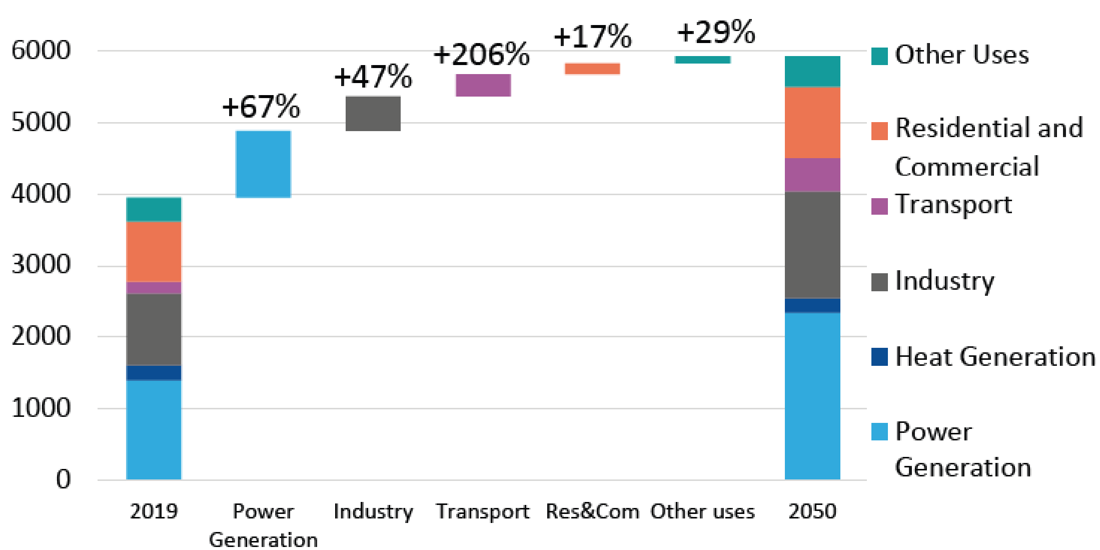
A consistent LNG supply-demand gap will start to emerge from 2031
Output from existing projects is expected to decline by >5% by 2035, increasing the need for new LNG capacity

McKinsey & Company

Trends in global natural gas demand by region (bcm) & by Sector



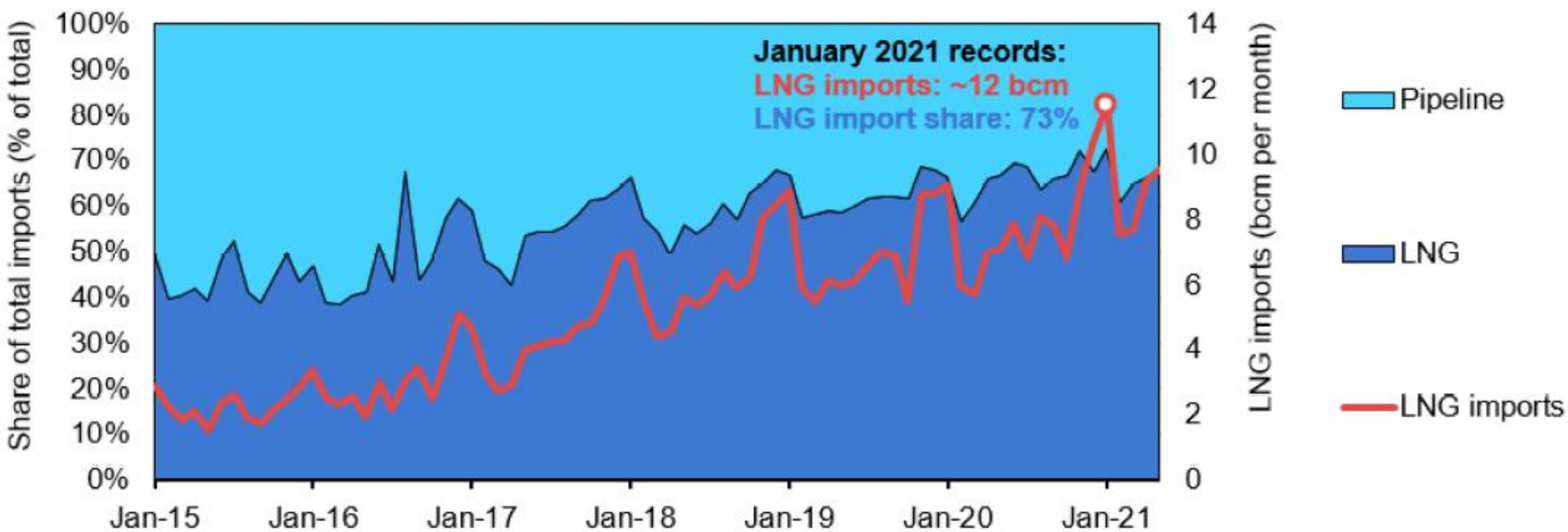
Source: GECF Secretariat based on data from the GECF GGM



Source: GECF Secretariat based on data from the GECF GGM

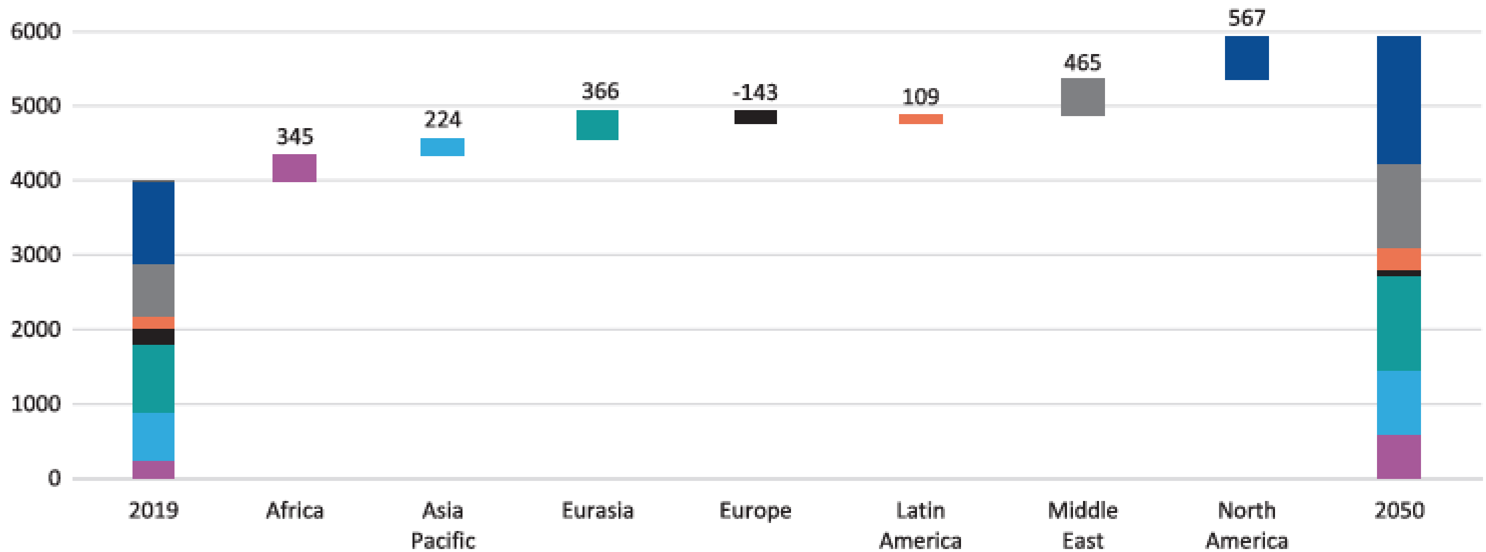
CHINA

Share of LNG in total gas imports and LNG import volume in China, 2015-2021



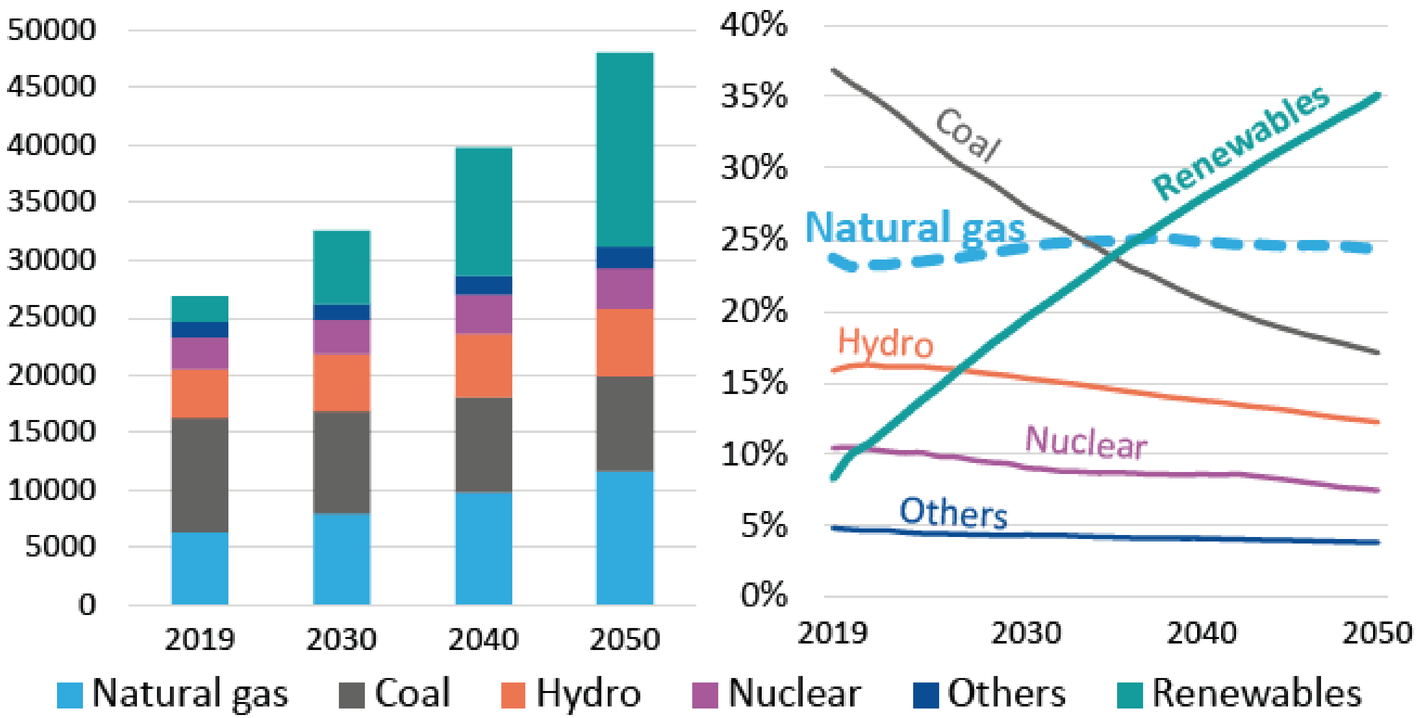
Sources: IEA analysis based on China Customs (2021), Statistics; National Bureau of Statistics (2021), Monthly Data.

Outlook for regional change in natural gas production by 2050 (bcm)



Source: GECF Secretariat based on data from the GECF GGM 2020

Global electricity generation growth (TWh) and fuel shares (%)



Source: GECF Secretariat based on data from the GECF GGM
Note: Others include oil and bioenergy