

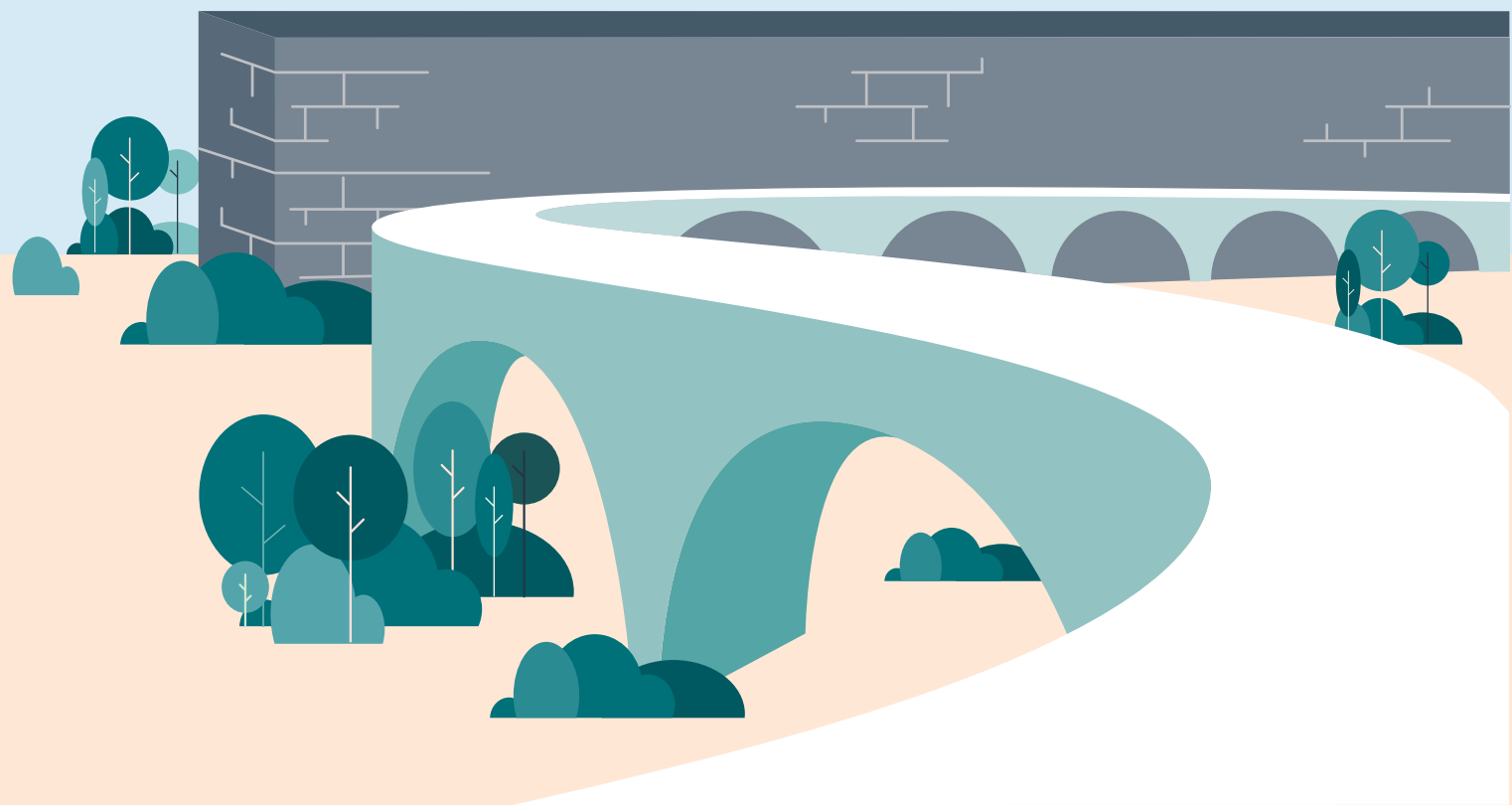
The Future of Gas in Europe

Global macroeconomic and energy market outlook

David Cairns

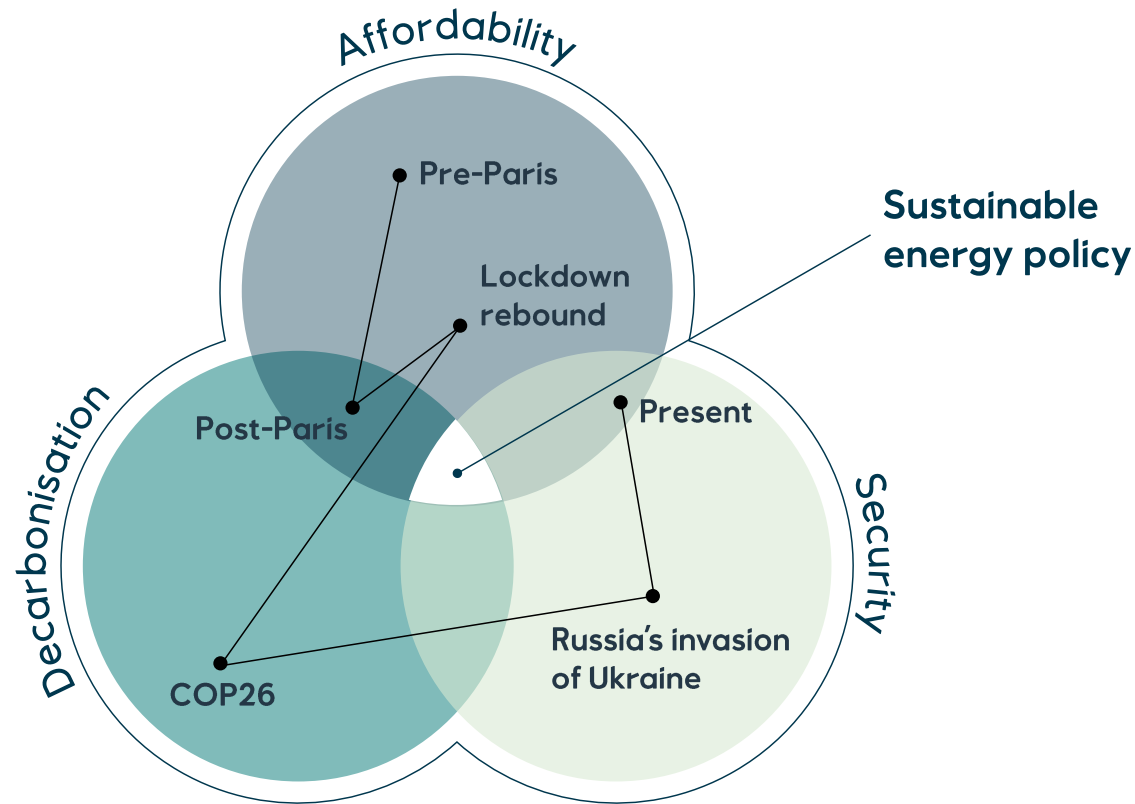
Vice President, Policy and Public Affairs

9 December 2022

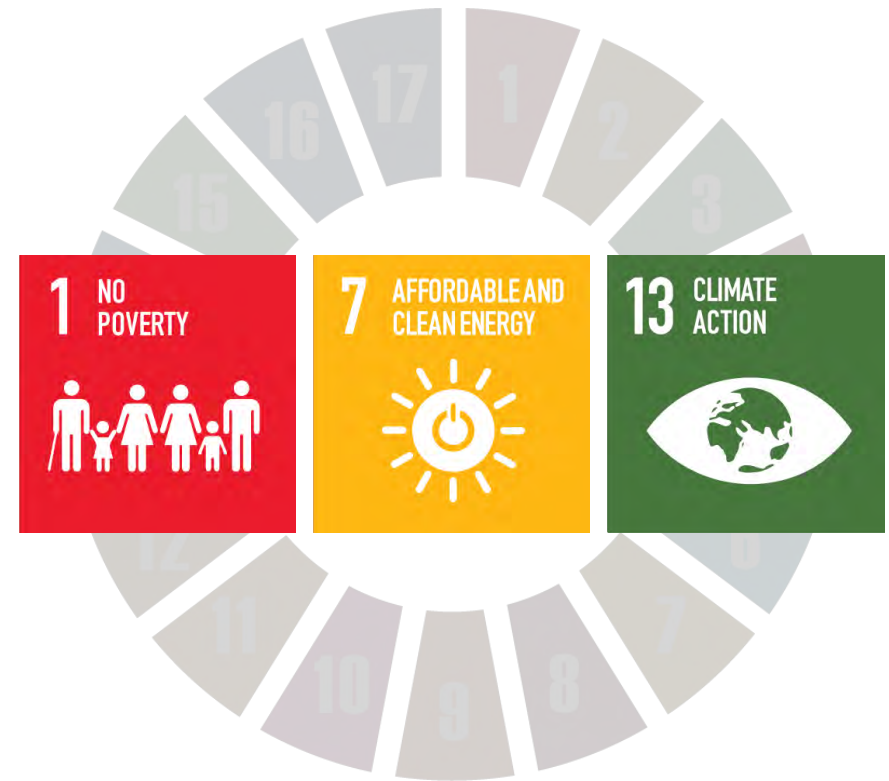


We see a vivid illustration of the energy trilemma

Sustainability requires a balanced approach



Source: Equinor

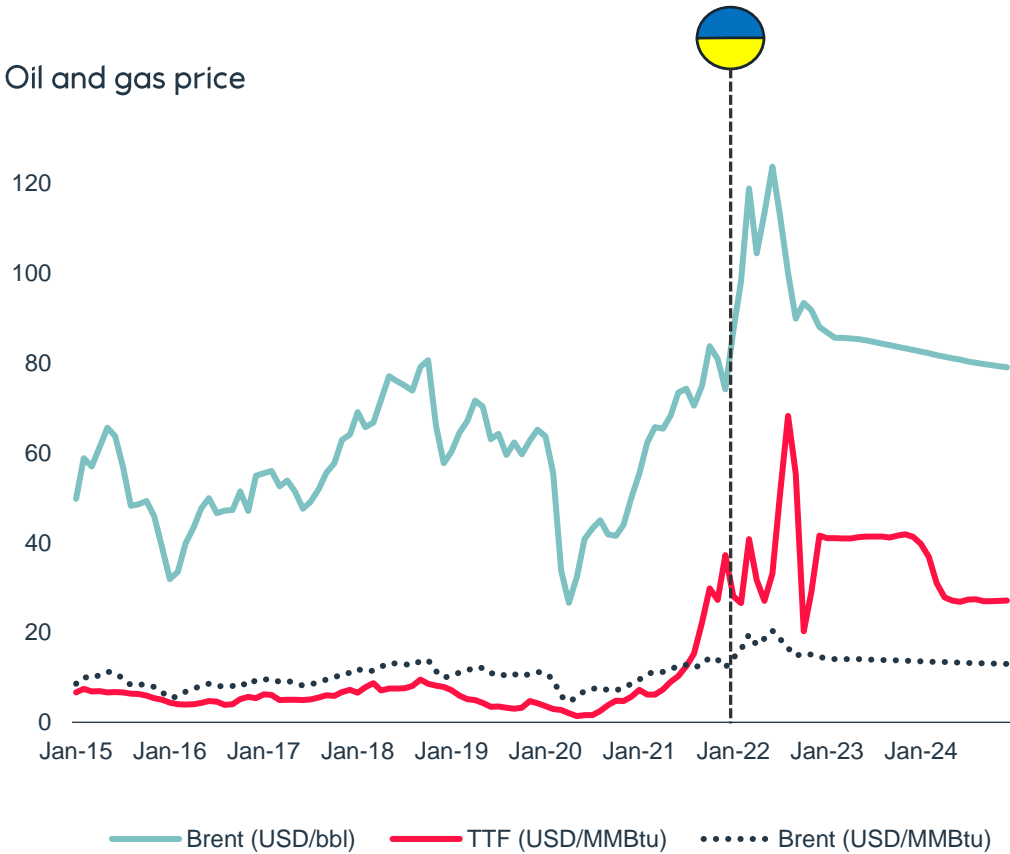


Source: United Nations

We are in a world of extremes

Conflicts and unrest, lack of trust, market imbalances, disastrous weather events

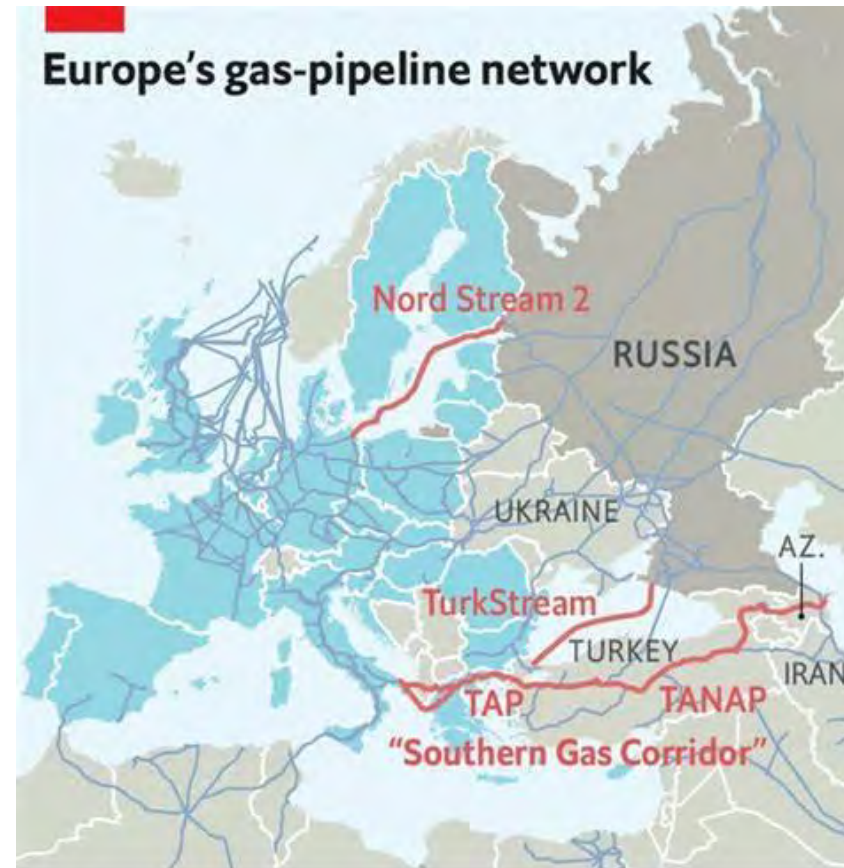
Oil and gas price



Source: Platts, Heren (history), ICE (projection)



Russian gas supply to Europe: 2021: c.130-140bcm. 2022. c.55-65bcm est.

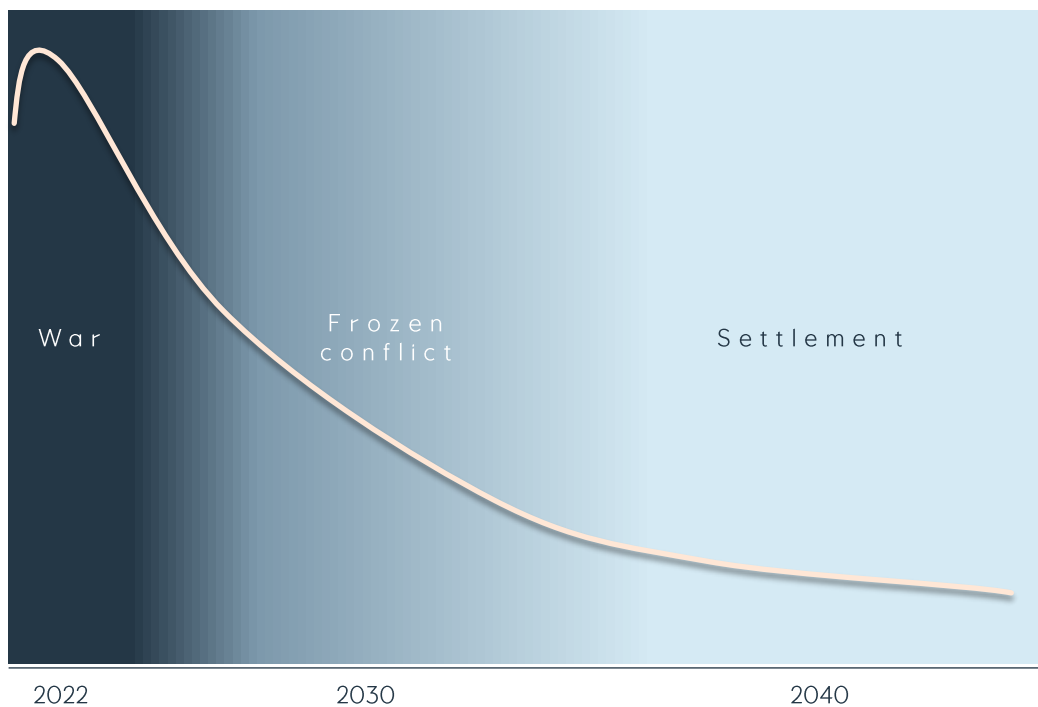


The Economist

Our take on the global development over the next years

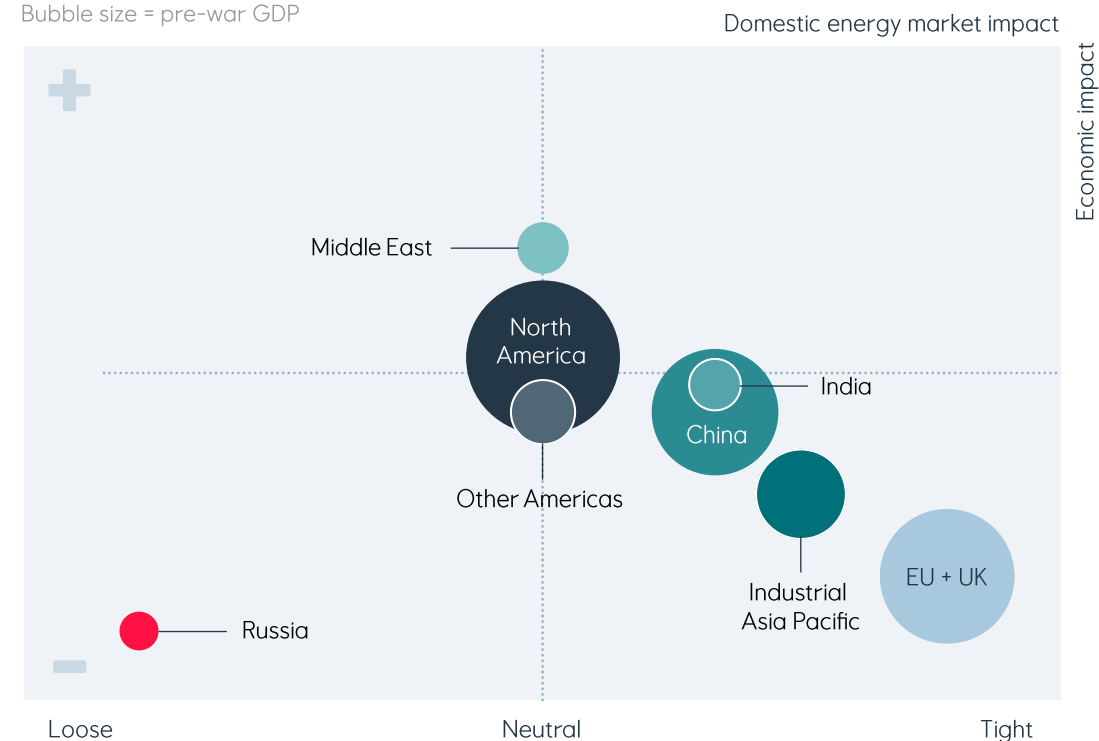
The Russian invasion will have long-lasting impact on the global energy system and economic growth

Negative economic and energy market impact



Regional impact towards 2030

Bubble size = pre-war GDP

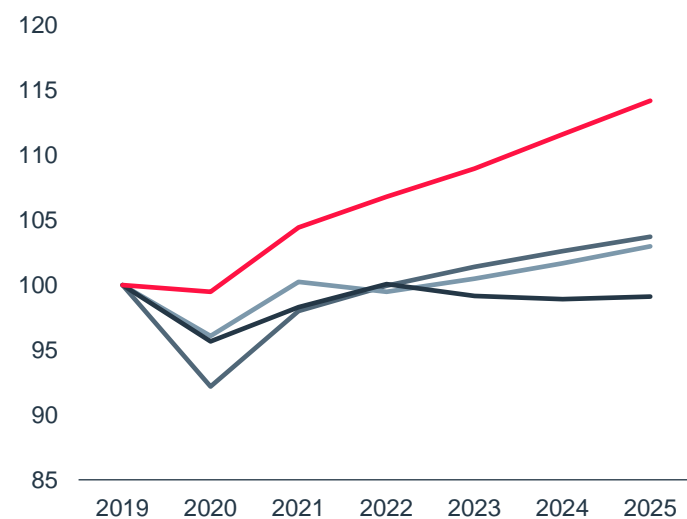


Our short-term outlook to 2025

Out of Covid, handling the energy crisis and supply bottlenecks, food inflation and re-globalisation

Coal, oil, gas and electricity demand

Indexed, 2019 = 100

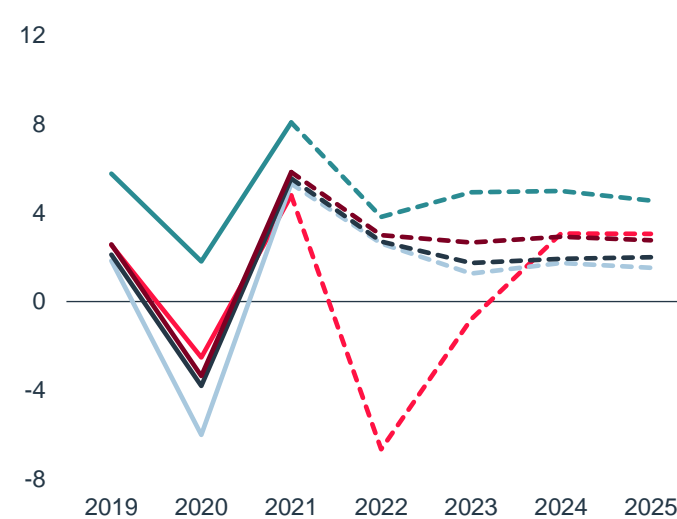


■ Coal ■ Oil ■ Gas
■ Electricity

Source: IEA (history), Equinor (projections)

GDP growth

% change y/y

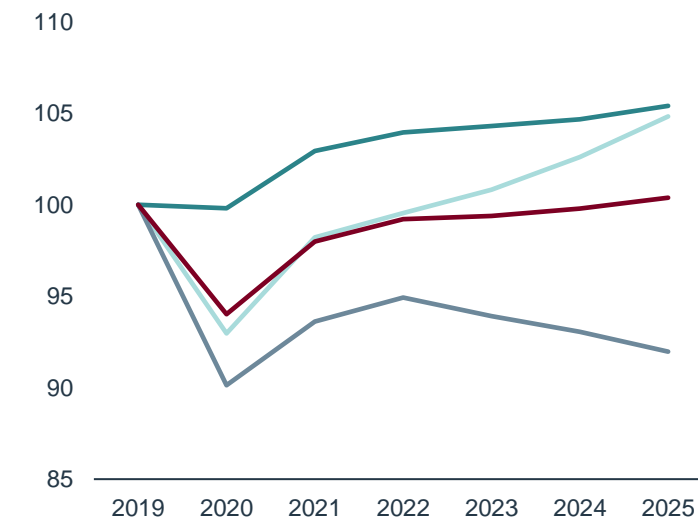


■ China ■ European Union ■ CIS
■ North America ■ World

Source: © Oxford Economics Limited 2022 (history), Equinor (forecast from June 2022)

Energy-related CO₂ emissions

Indexed, 2019 = 100

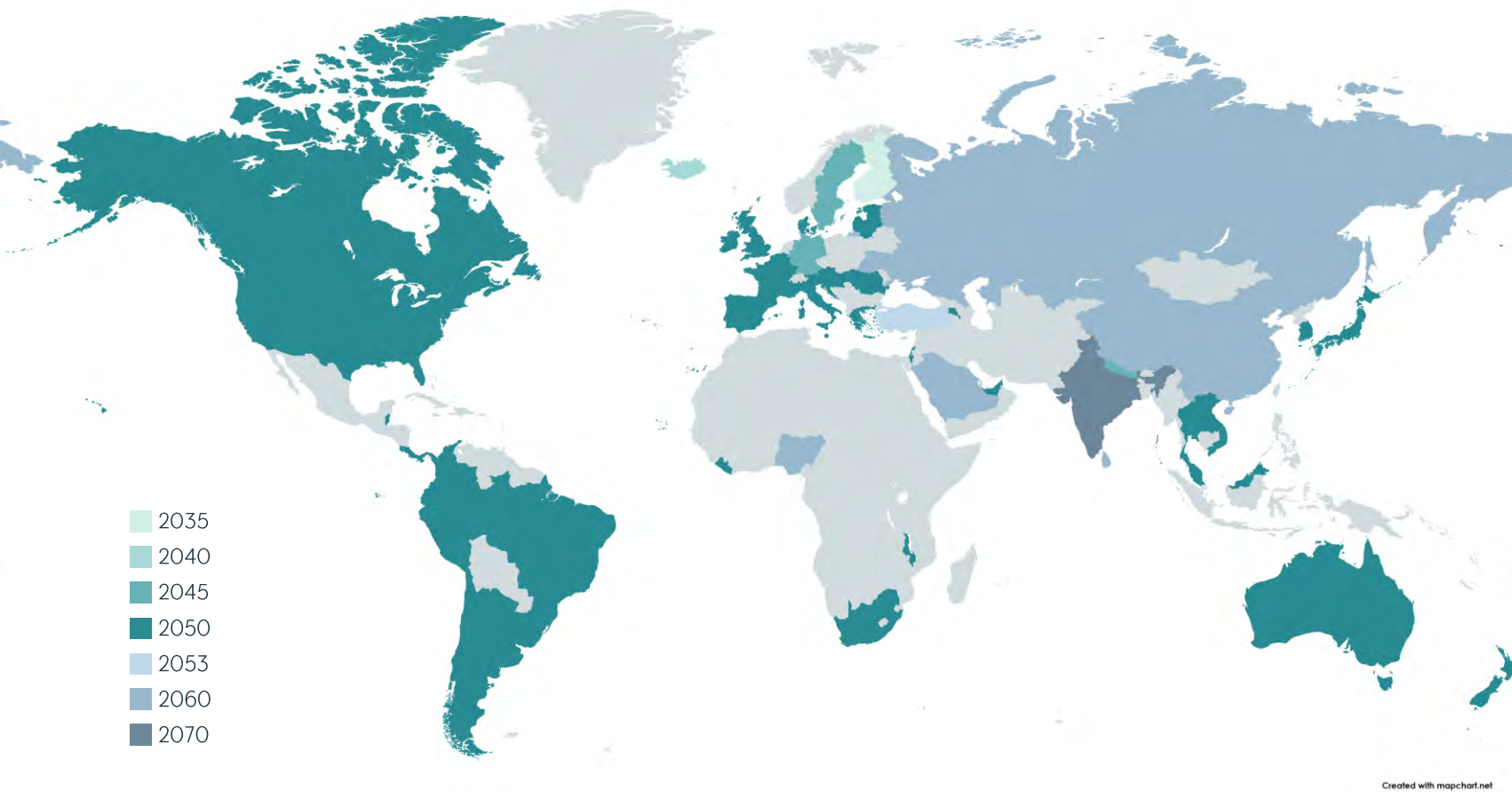


■ Industrialised ■ China ■ Emerging excl China
■ World

Source: IEA (history), Equinor (projections)

The net zero target is dominant

Countries with net zero targets set in law, policy documents or pledges



More than 70 countries committed to net zero

Representing more than 75% of global emissions



Walls protect

but also divide

Walls

- Builds on historical and current market trends and policy signals
- Economic growth is a key driver
- Russia's invasion of Ukraine and geopolitical tensions have given rise to reappearance of obstacles
- Energy security increasingly important in the short-to-medium term

Bridges connect and enable

Bridges

- A normative back-cast scenario
- Consistent with a temperature rise of 1.5°C
- Immediate and coordinated international action needed
- Illustrates what it takes to get there



A change of pace and a revolution in transforming the energy system



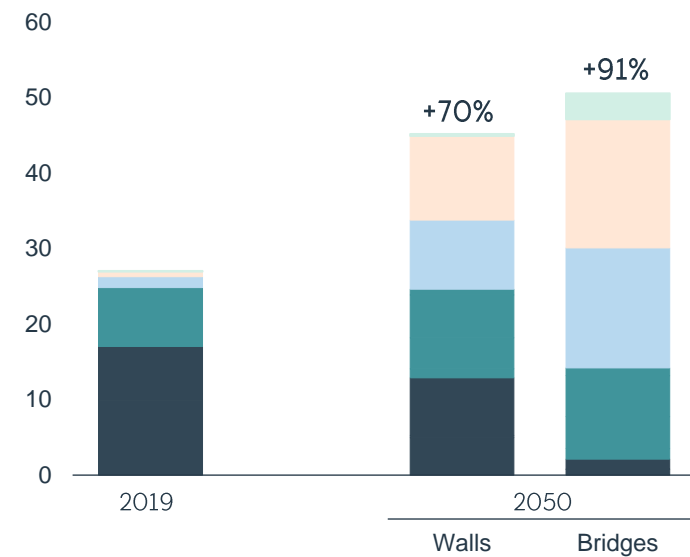
	History 1990 - 2019	Walls 2019 - 2050	Bridges 2019 - 2050
Total primary energy demand CAGR %	1.8%	0.1%	-1.0%
Energy intensity CAGR %	-1.2%	-2.0%	-3.1%
Fossil fuel demand (Change in period - Gtoe)	4.5	-2.3	-9.2
Solar and wind in power generation (Change in period - Thousand TWh)	2	18	31

Massive changes in different parts of the energy system

Electrification is the key element of the energy transition, and a major factor in efficiency improvements

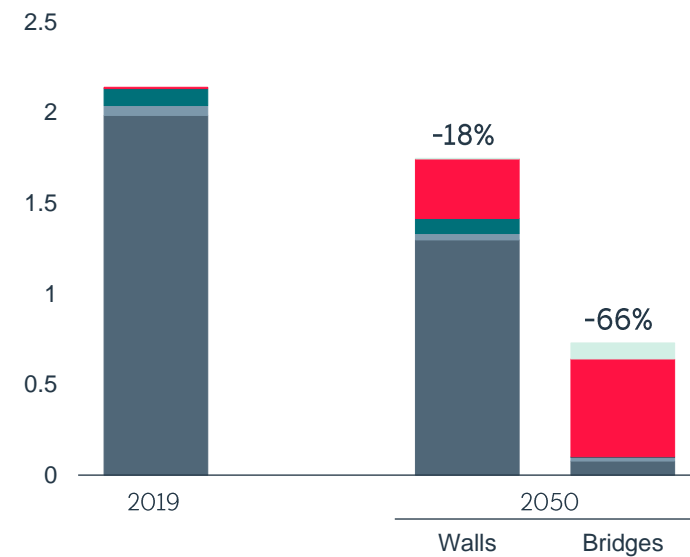
Electricity generation

Thousand TWh



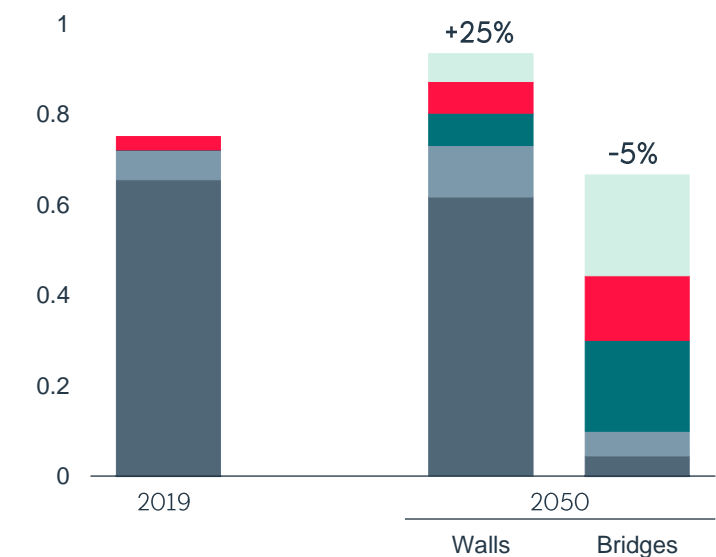
Road transport fuel demand

Billion toe



Non-road transport fuel demand

Billion toe



Fossil fuels
 Other
 Wind
 Solar
 Hydrogen

Oil
 Gas
 Biofuels
 Electricity
 Hydrogen

Oil
 Gas
 Biofuels
 Electricity
 Hydrogen

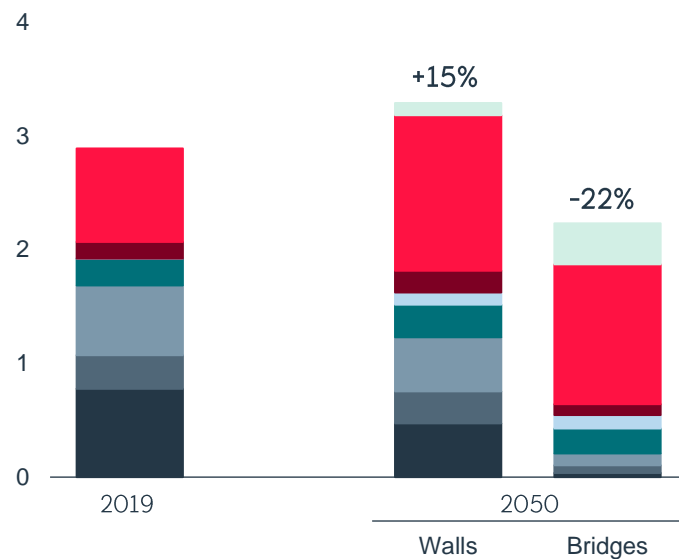
Source: IEA (history), Equinor (projections)

Electrification and efficiency improvements are keys in other sectors

Fossil fuels still needed as feedstock

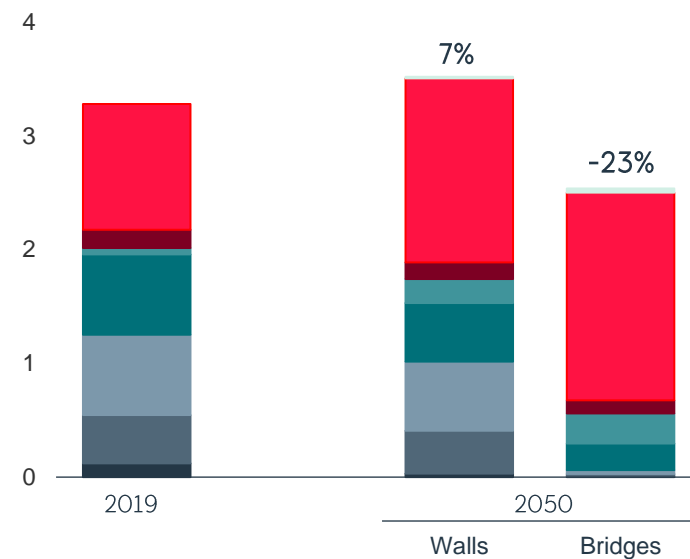
Industrial demand

Billion toe



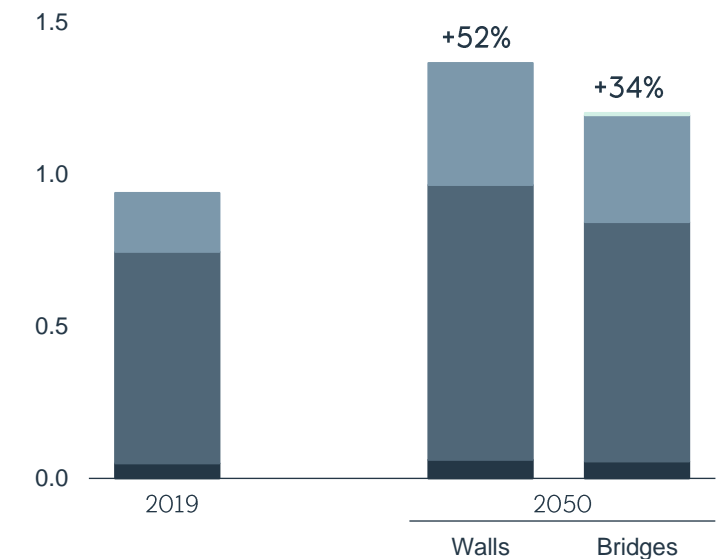
Buildings demand

Billion toe



Non-Energy demand

Billion toe

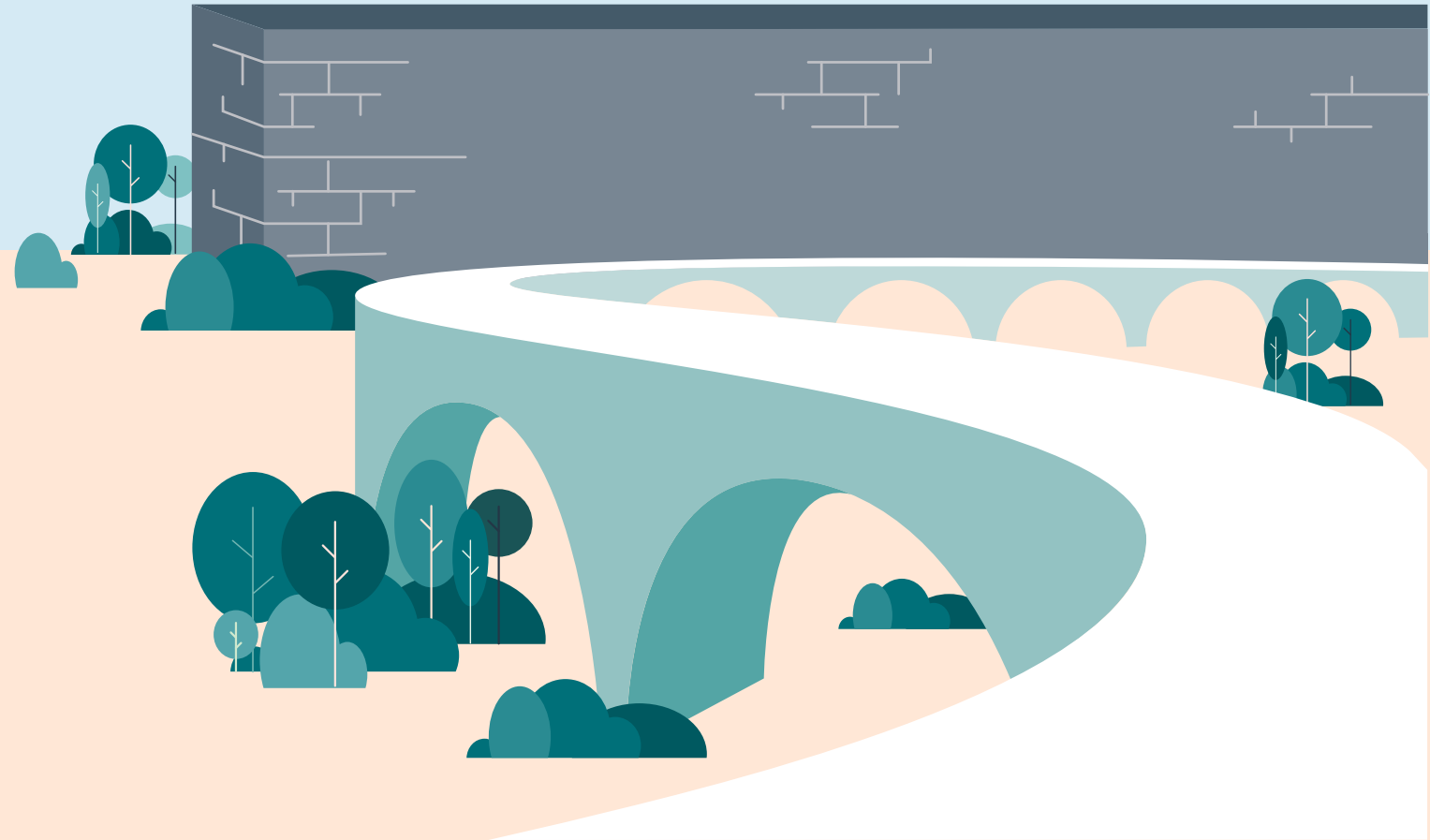


Coal
 Oil
 Gas
 Biomass
 New Renewables
 Heat
 Electricity
 Hydrogen

Source: IEA (history), Equinor (projections)

“We build
too many walls
and not enough
bridges.”

- *Attributed to Sir Isaac Newton*





Thank you