2025

Energy Perspectives

Global macroeconomic and energy market outlook

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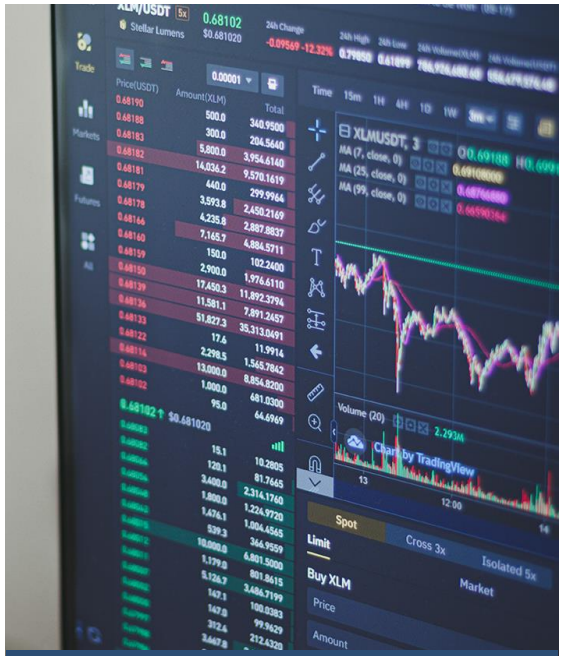
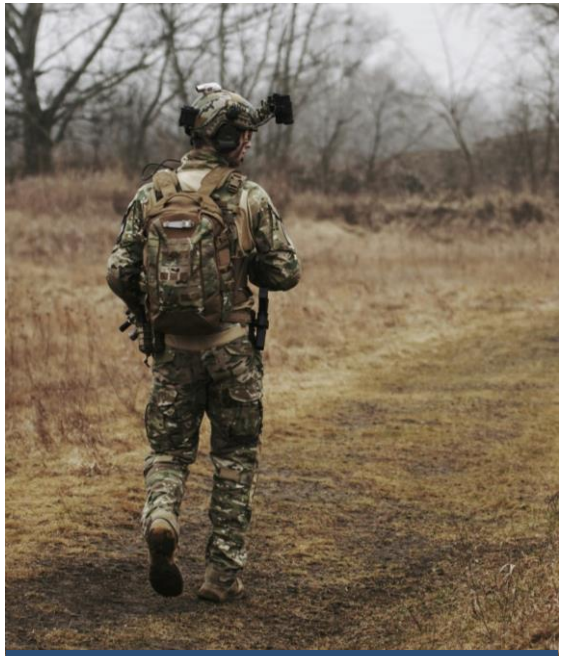
Global tensions and competing directions

… a world defined by clashing priorities and divergent paths



Markets and trade

- Globalism
- Protectionism

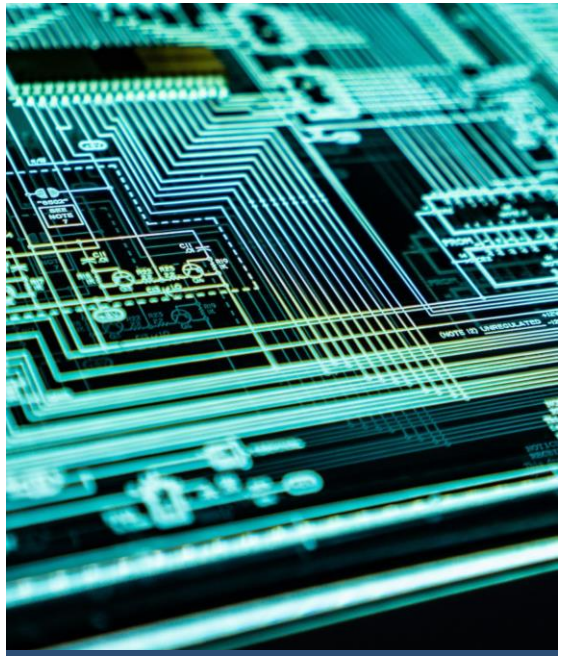


Conflicts and security

- Resolution
- Escalation

Leadership and politics

- Strategy
- Paralysis

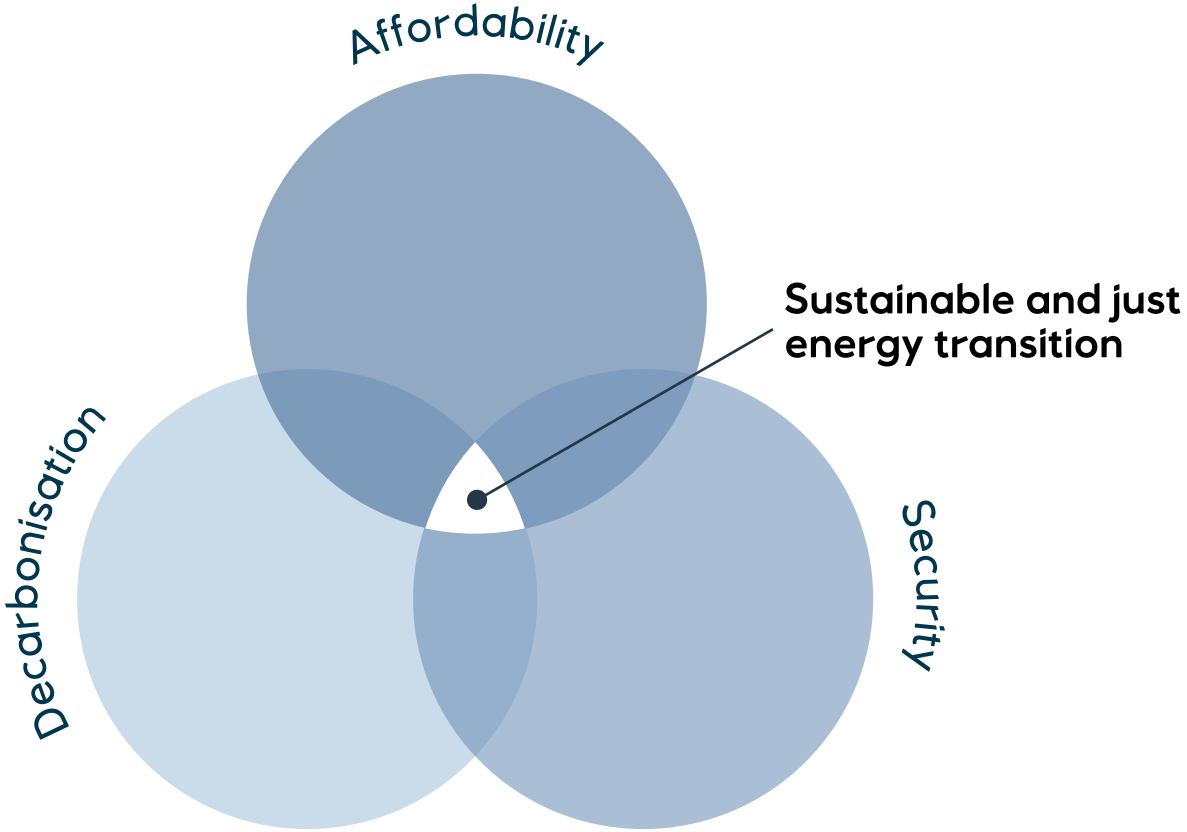


Technology and systems

- Innovation
- Vulnerability

The energy trilemma is affected by events

Focus on decarbonisation challenged in a world of conflict and lacklustre growth, with focus on energy security and affordability



Affordability

- EU fiscal strain and growth challenges
- Anti net-zero sentiment
- Anti-incumbency sentiment
- US Energy dominance

Security of supply

- Trade escalation, sanctions
- Russia-Ukraine war
- Middle East contagion
- Infrastructure challenges

Decarbonisation

- COP30
- EU climate regulation

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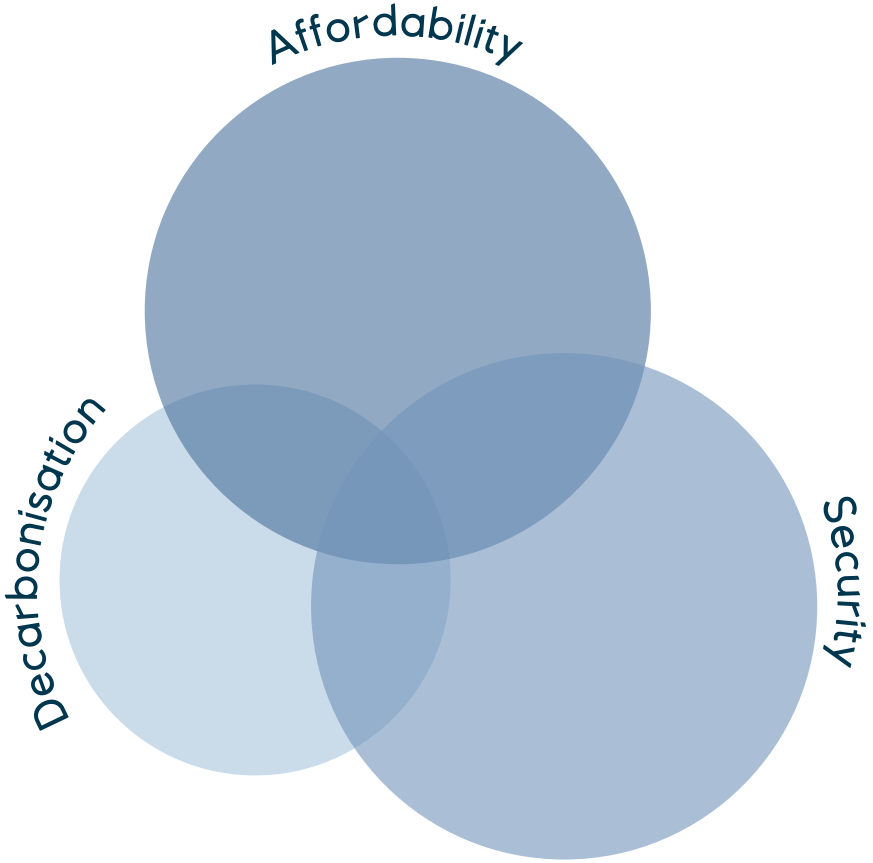
Focus on decarbonisation challenged in a world of conflict and lacklustre growth, with focus on energy security and affordability



Affordability

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Security of supply

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Decarbonisation

- COP30
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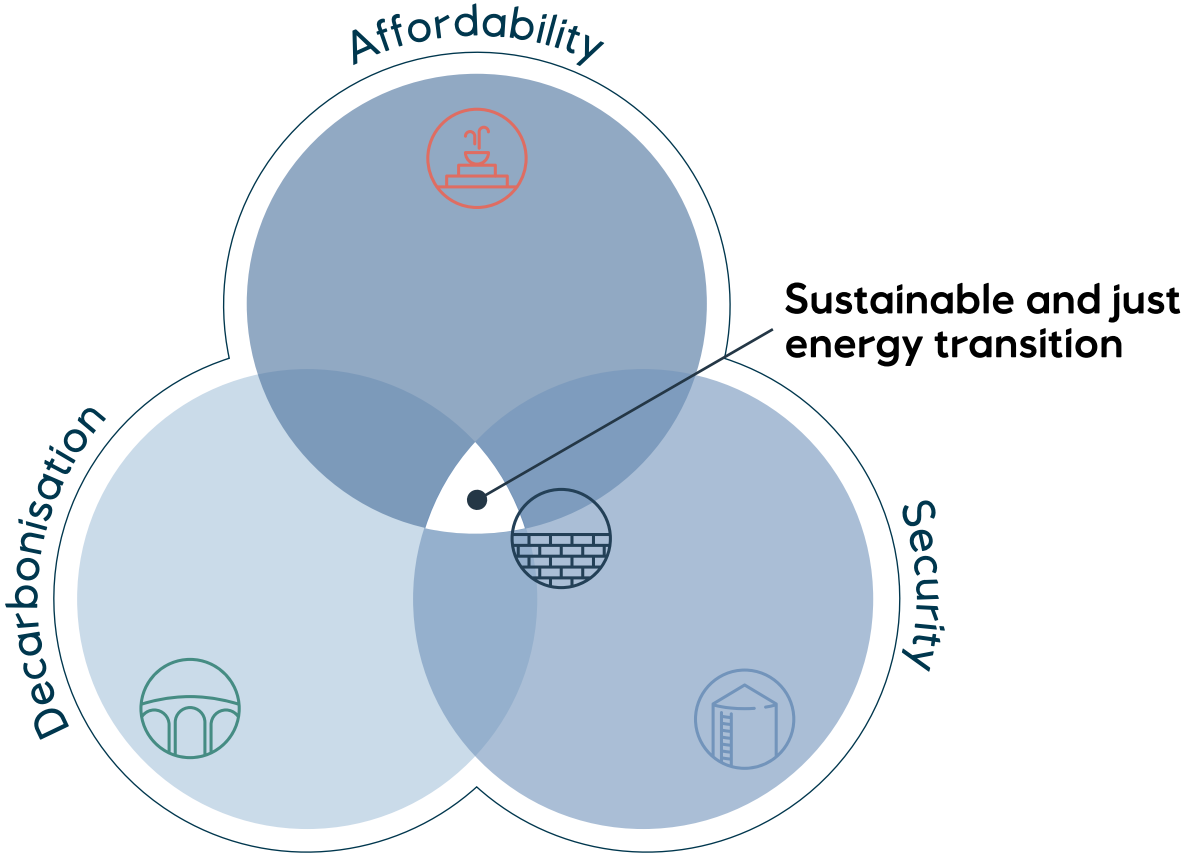
Our four scenarios explore the dimensions of the energy trilemma

...with competing priorities influencing policy makers' approach to economic, climate and energy policies



Three of the scenarios explore the implications for the future of drivers that strongly focus only on one dimension in the energy trilemma

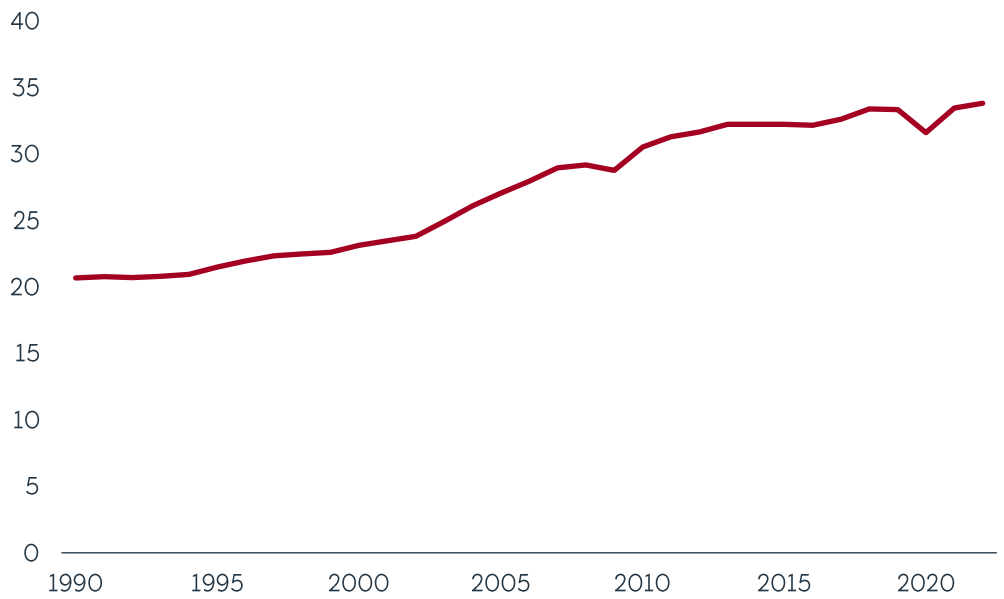
.....*Walls* is balancing between security of supply and affordability and impacted by decarbonisation policies

Emissions continue to rise but at different pace across regions

Emissions per capita in the industrialised regions are in decline but growing in the emerging regions

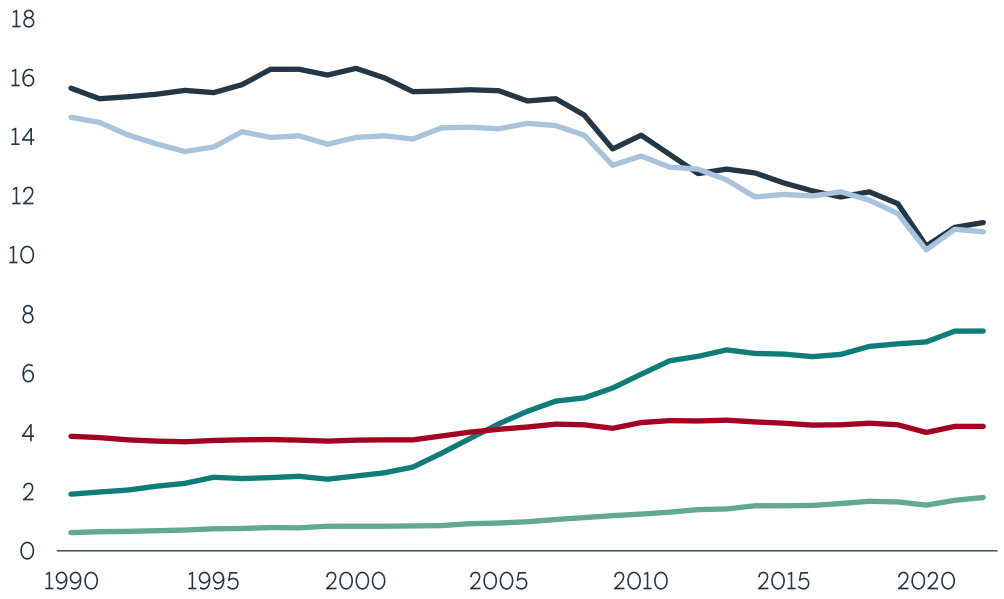
Global energy-related emissions

Gt CO_2



Emissions per capita

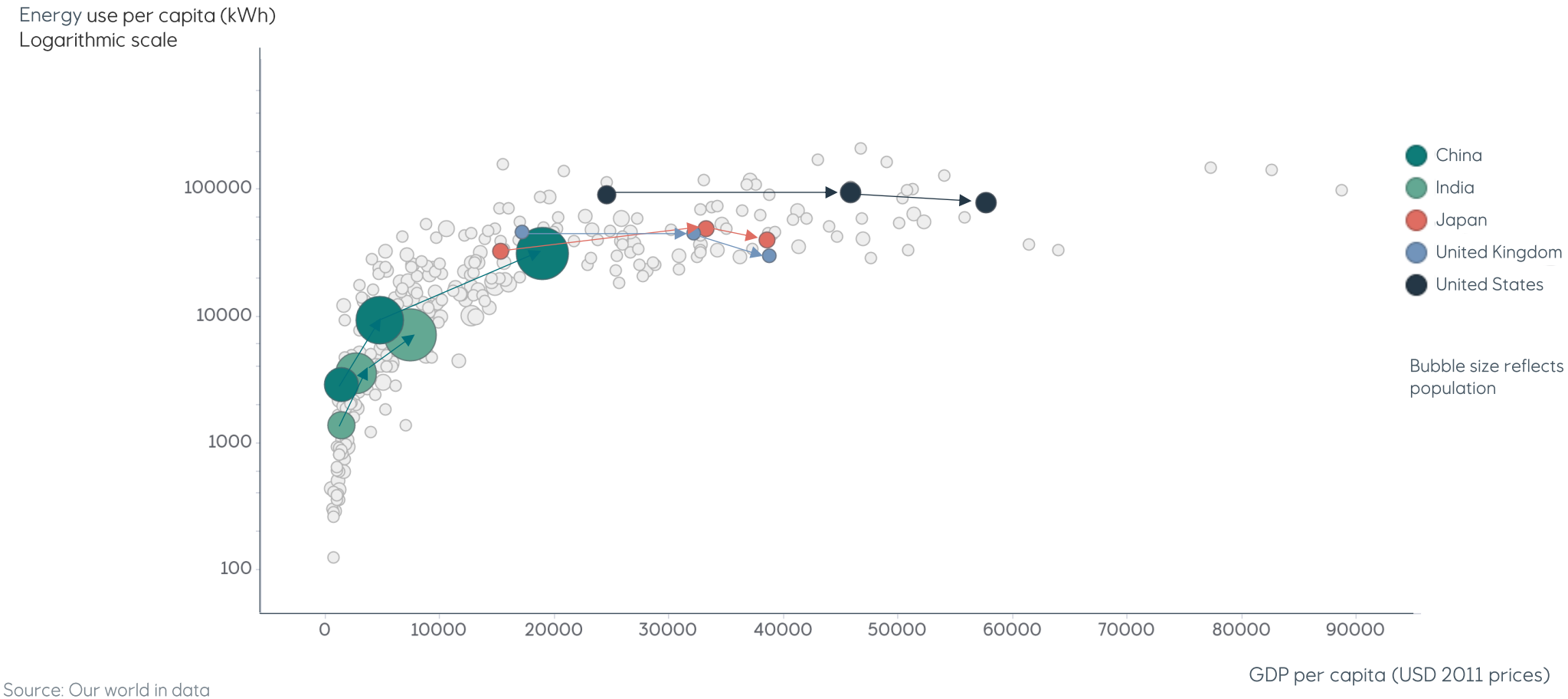
tonnes CO_2



Source: IEA

Economic development requires energy, up to a point

A strong link between growing energy use and economic development at low GDP per capita levels. 1970 – 2000 – 2022



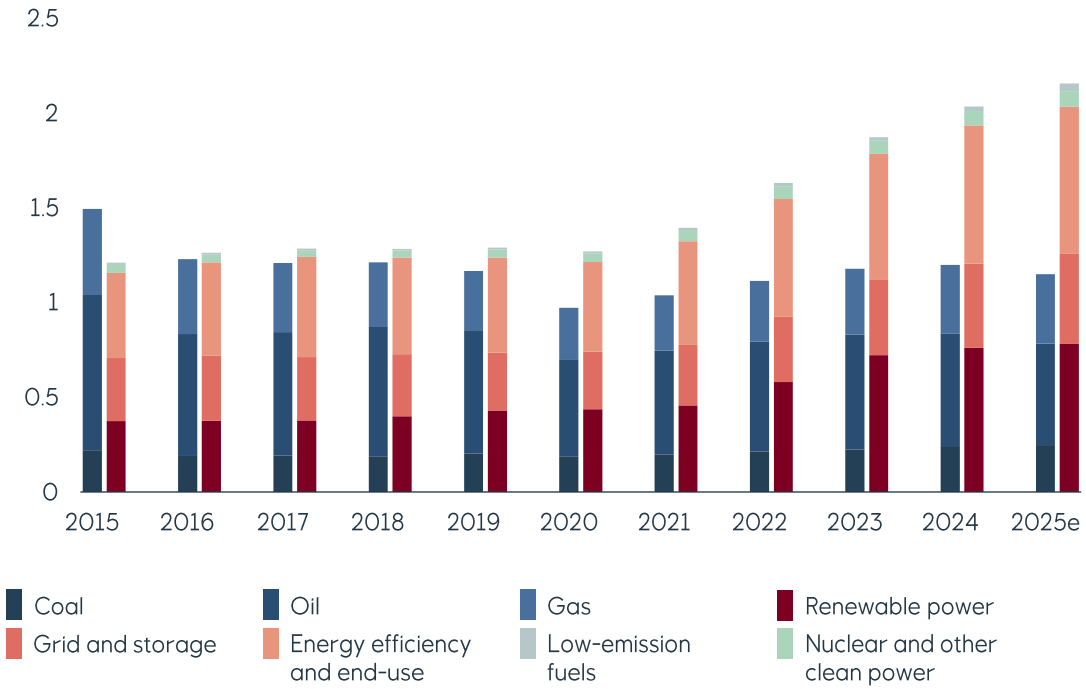
Source: Our world in data

Investment in the energy industry exceeded 3 trillion USD in 2024

... driving exponential growth in electricity generation from solar and wind, but with fossil generation also growing

Energy industry investment

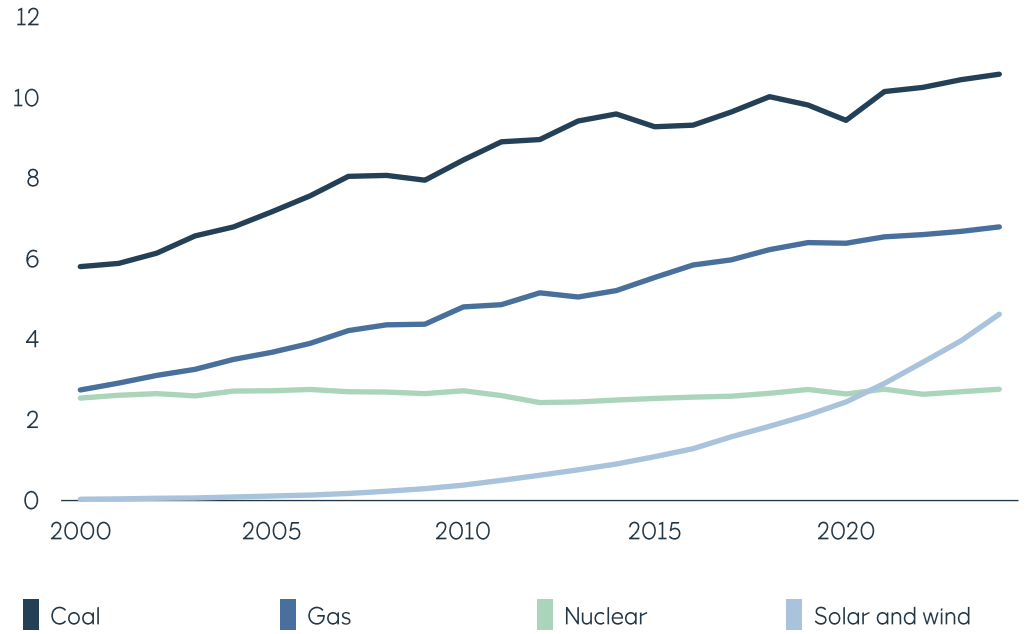
Trillion USD



Source: World Energy Investment 2025, IEA

Electricity generation

Thousand TWh



Source: Ember Electricity Data Explorer, ember-energy.org

Walls - current trajectory

- builds on current energy market trends
- climate action slowly accelerates

Plazas - affordability

- open world with trade and cross-border investments
- higher economic growth
- consumption and affordable energy
- lack of climate focus

Silos – security of supply

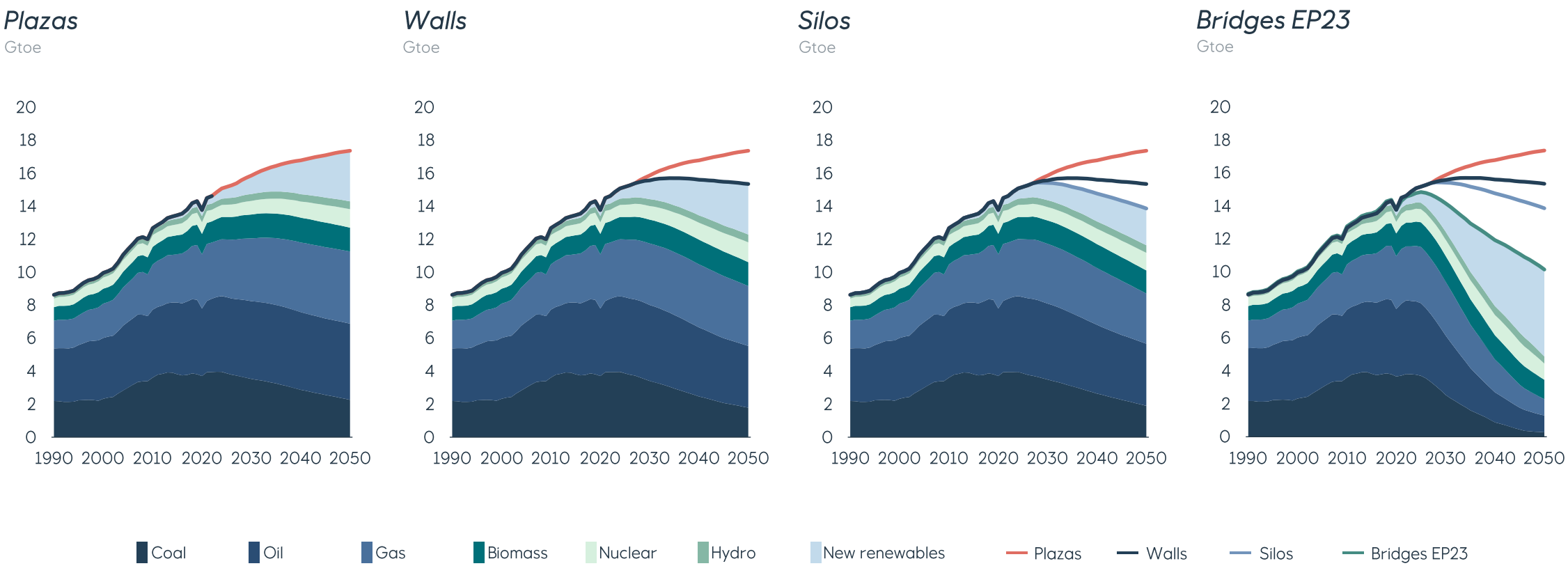
- fragmented world
- restricted global trade
- lack of collaboration
- slower economic growth
- lack of climate focus

Bridges EP23 - decarbonisation

- normative back-cast scenario
- used to contrast and compare
- shows the immense challenge of staying within the 1.5 °C carbon budget

Energy demand impacted by both economic growth and the fuel mix

Total primary energy demand peaks mid-2030s in *Walls* and late 2020s in *Silos*, *Plazas* continues to grow



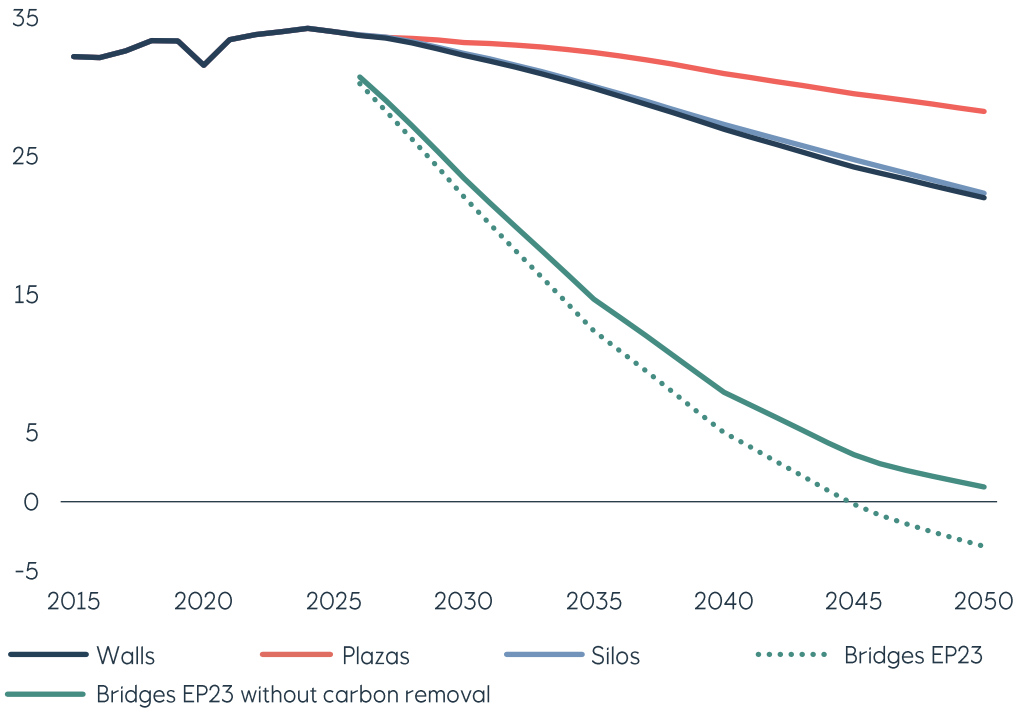
Source: IEA (history), Equinor (projections)

Emissions decline in all scenarios, but at very different speeds

The gap to a 1.5-degree consistent pathway widens year by year

Annual energy-related emissions, incl. CCS

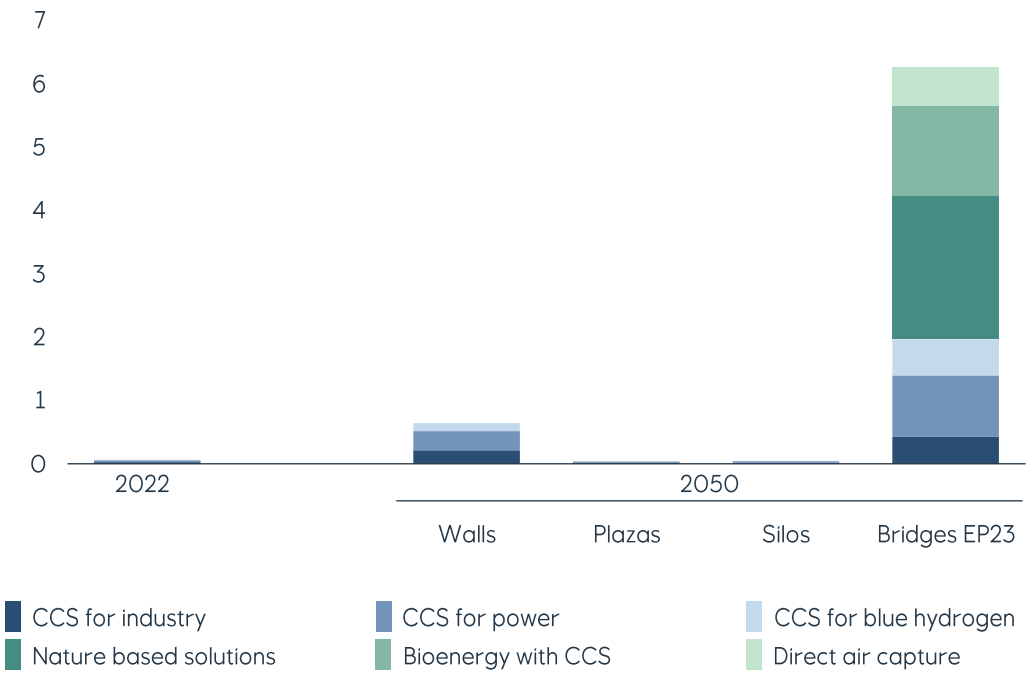
Gt CO_2



Source: IEA (history), Equinor (projections)

Carbon removal and carbon capture and storage

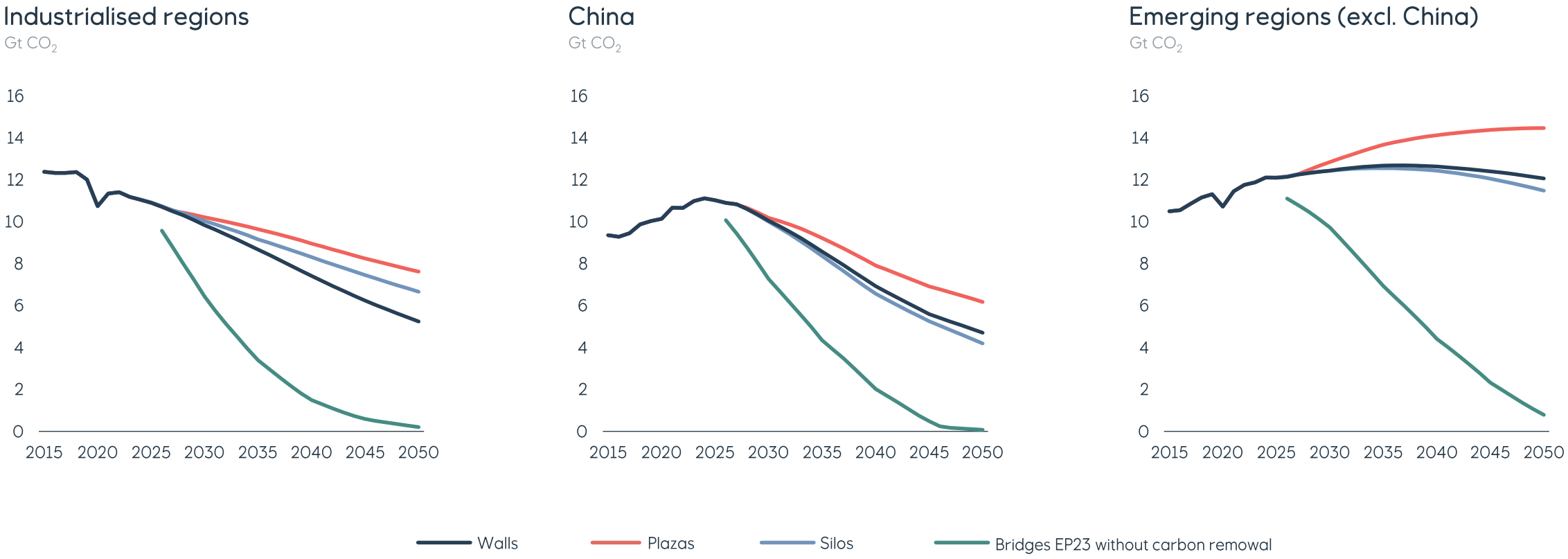
Gt CO_2



Source: Equinor (projections)

Large variation in regional energy-related emissions

The path to lowering emissions is set in the industrialised regions and China, but struggles to materialise in the rest of the world



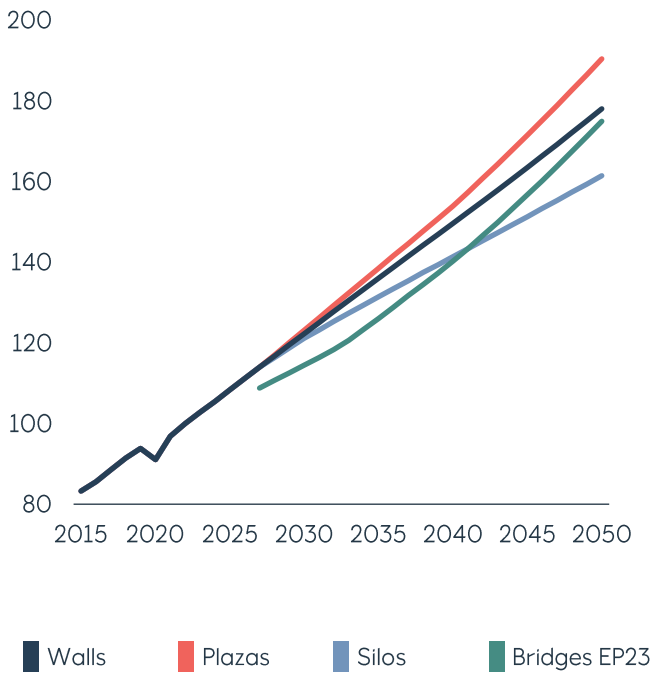
Source: IEA (history), Equinor (projections)

The global economy continues to grow and becomes more energy efficient

A much larger global economy with massive improvements in energy efficiency, especially in emerging economies

Global GDP

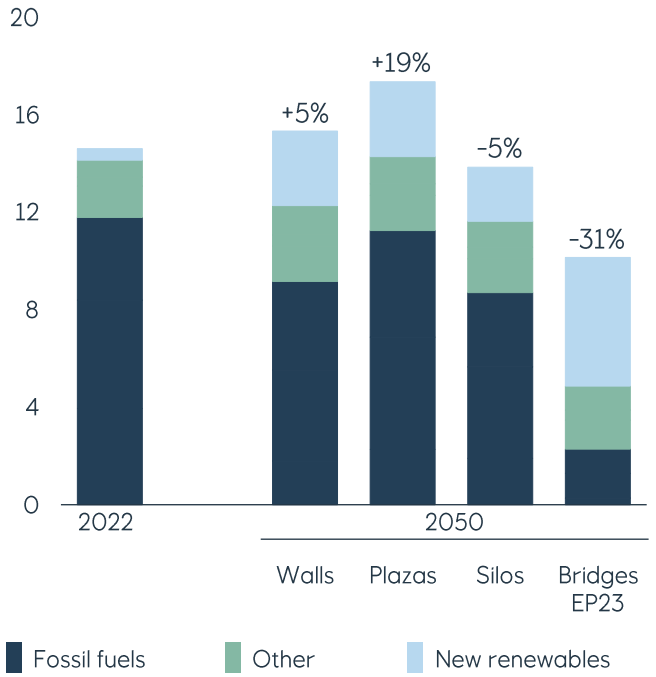
Indexed to 100 in 2022, constant USD



Source: IEA and Oxford Economics Limited 2024 (history), Equinor (projections)

Total primary energy demand

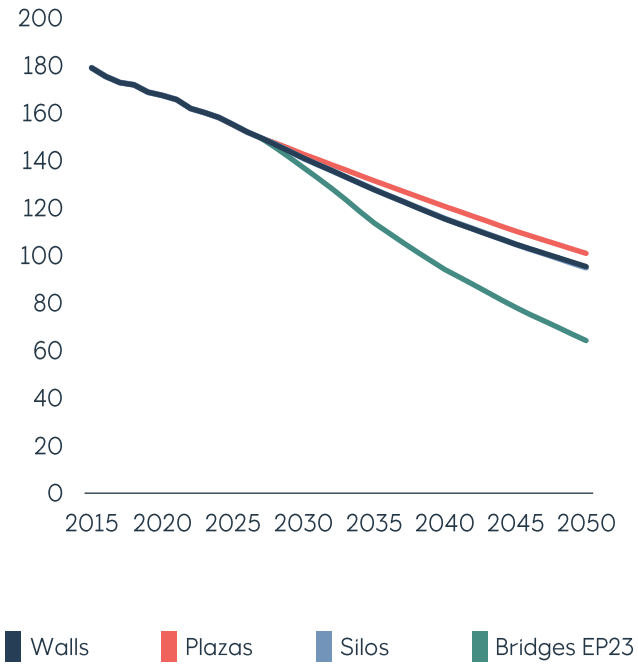
Gtoe



Source: IEA (history), Equinor (projections)

Energy intensity

toe per million USD



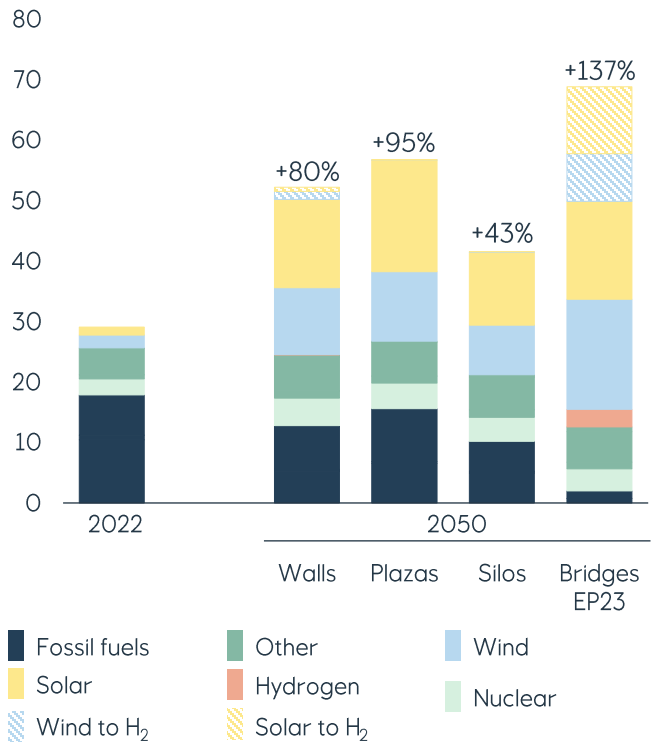
Source: IEA (history), Equinor (projections)

Massive growth in electricity generation is key in the energy transition

Allows for decarbonisation and efficiency improvements

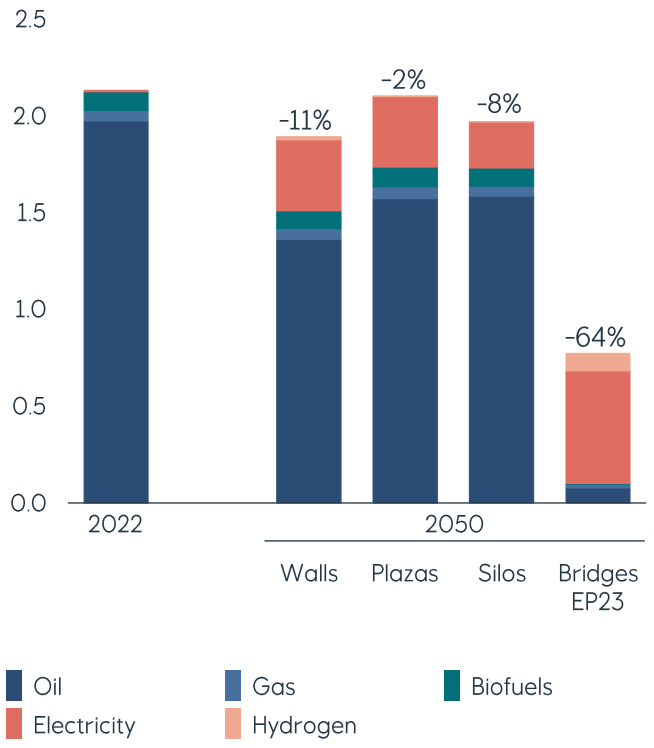
Electricity generation

Thousand TWh



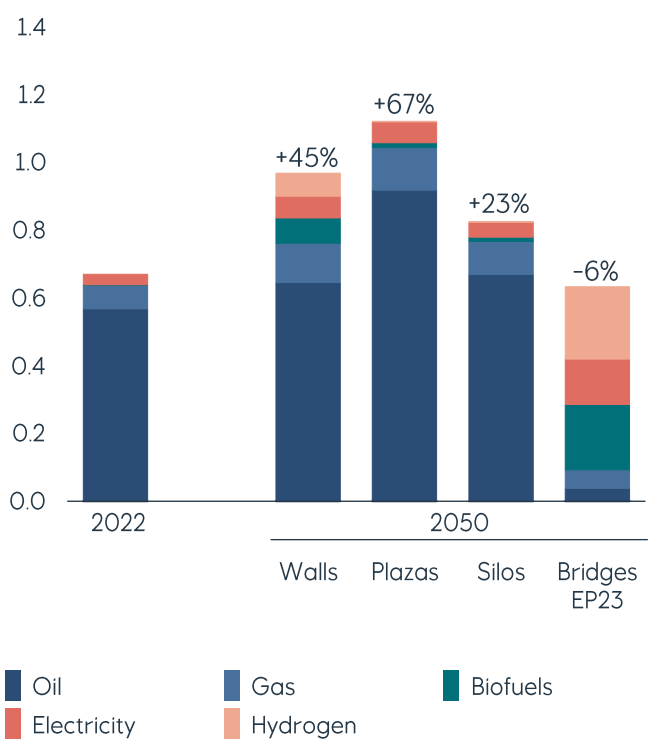
Road transport fuel demand

Gtoe



Non-road transport fuel demand

Gtoe



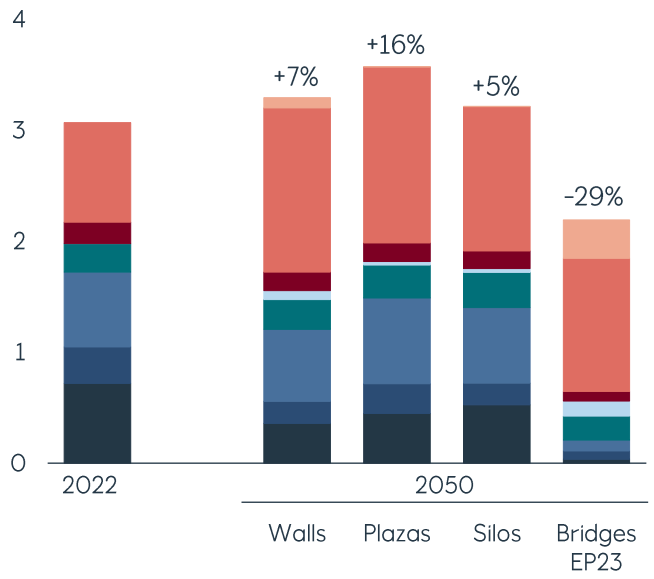
Source: IEA (history), Equinor (projections)

Massive growth in electricity generation is key in the energy transition

Allows for decarbonisation and efficiency improvements

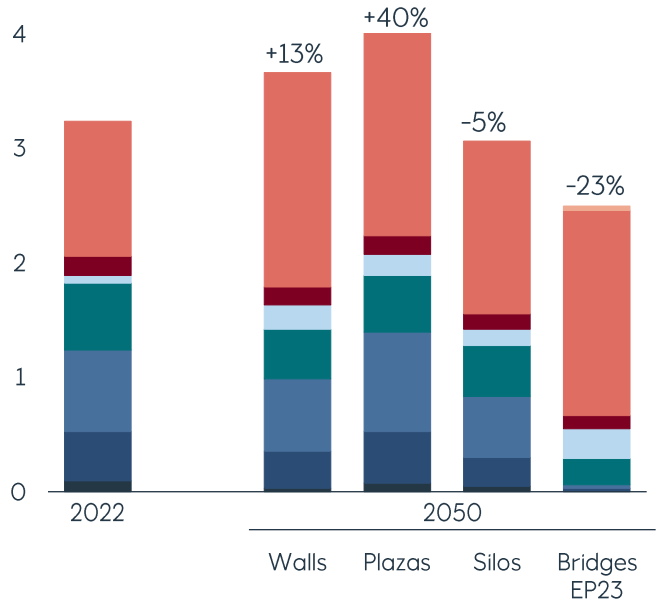
Industrial demand

Gtoe



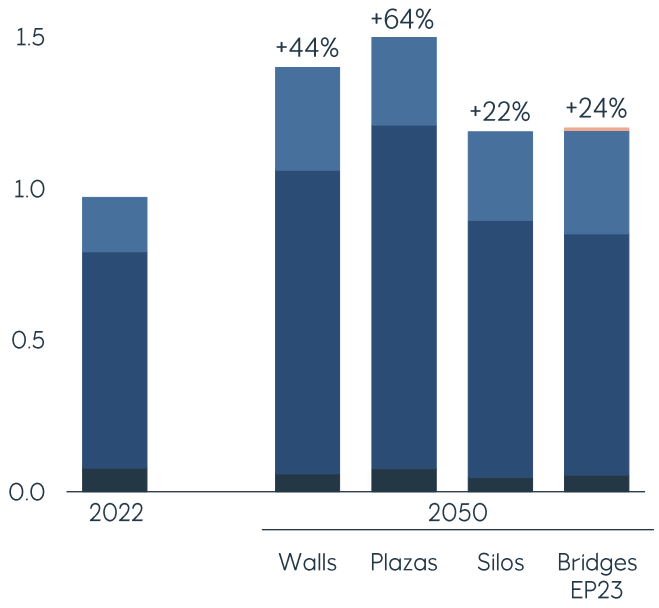
Buildings demand

Gtoe



Non-Energy demand

Gtoe



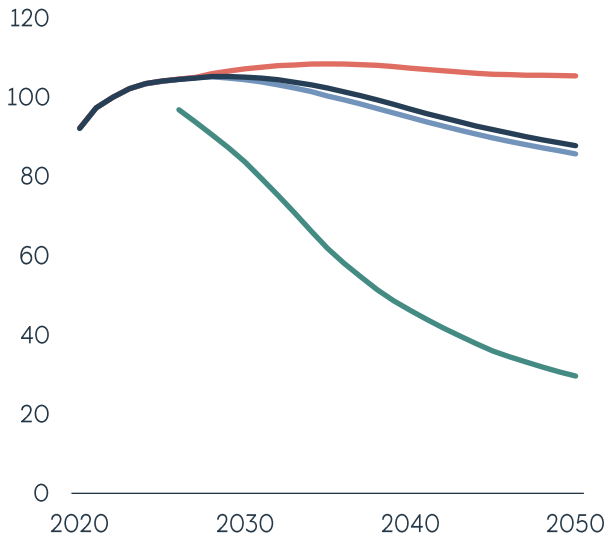
Source: IEA (history), Equinor (projections)

Wide outcome space for liquids and gas

Gas demand reacts to trade restrictions in *Silos* as it can be more easily substituted with other energy sources than liquids

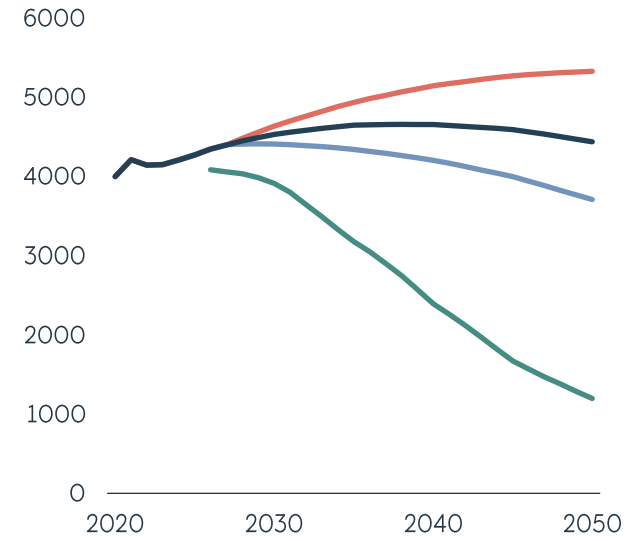
Liquids demand

mbd



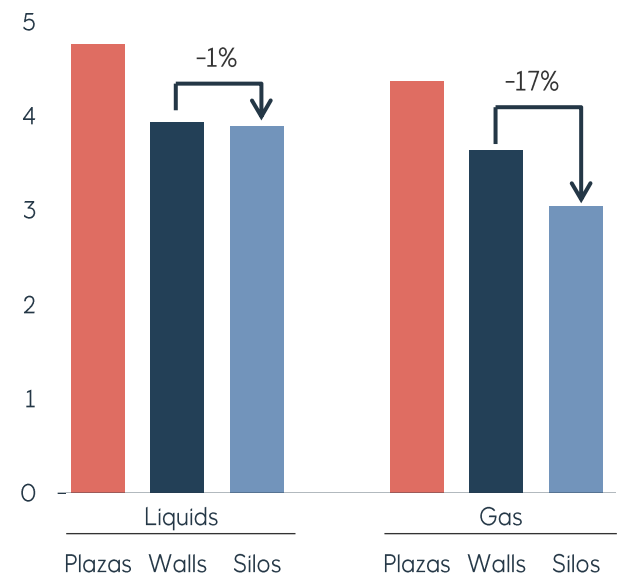
Gas demand

bcm



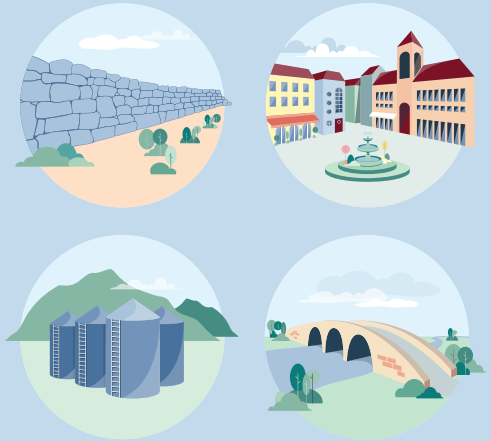
Total primary energy demand

Gtoe in 2050



Source: IEA (history), Equinor (projections)

Different futures describing a large outcome space for our energy system



	Walls	Plazas	Silos	Bridges EP23
GDP Growth CAGR 2022-50	2.1%	2.3%	1.7%	2.0%
Total primary energy demand Change compared to 2022	+5%	+19%	-5%	-31%
Net emissions Change compared to 2022	-35%	-16%	-34%	-110%

Thank you for your attention!