



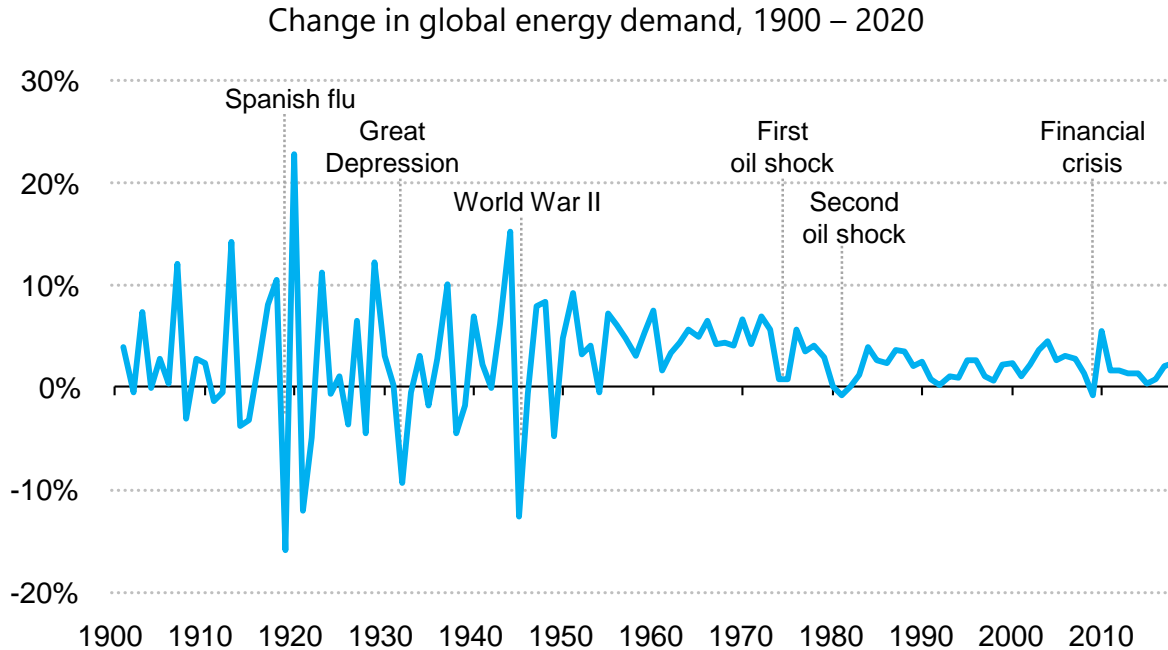
Fuels in transitions

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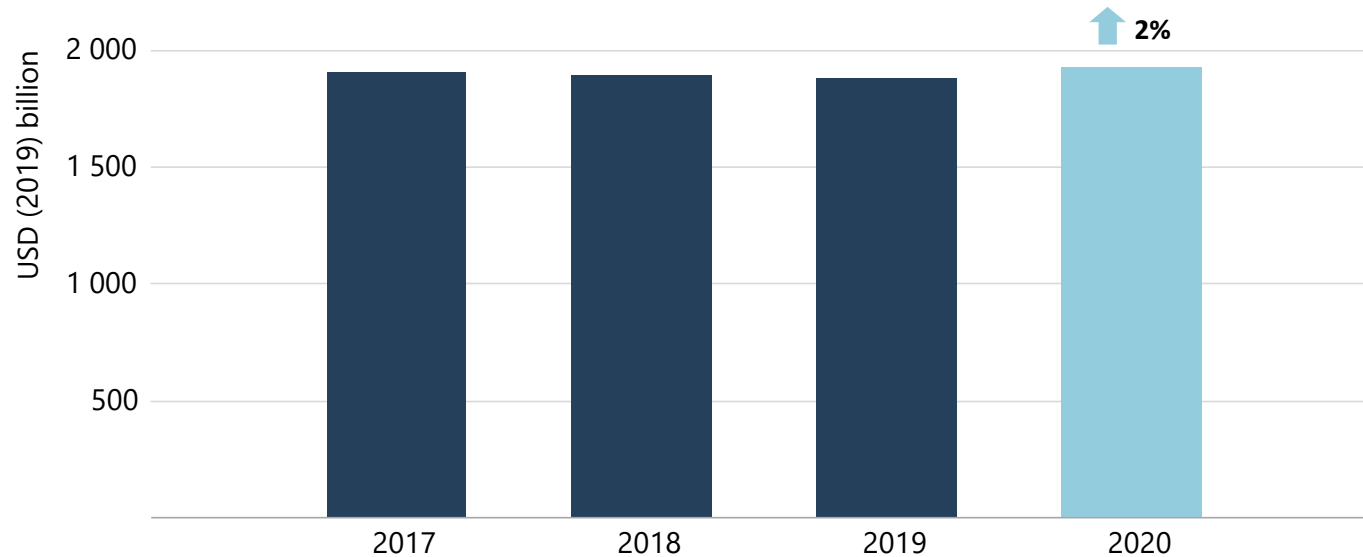
Coronavirus: a once in century event for energy demand



The shock to energy demand in 2020 is set to be the largest in 70 years.

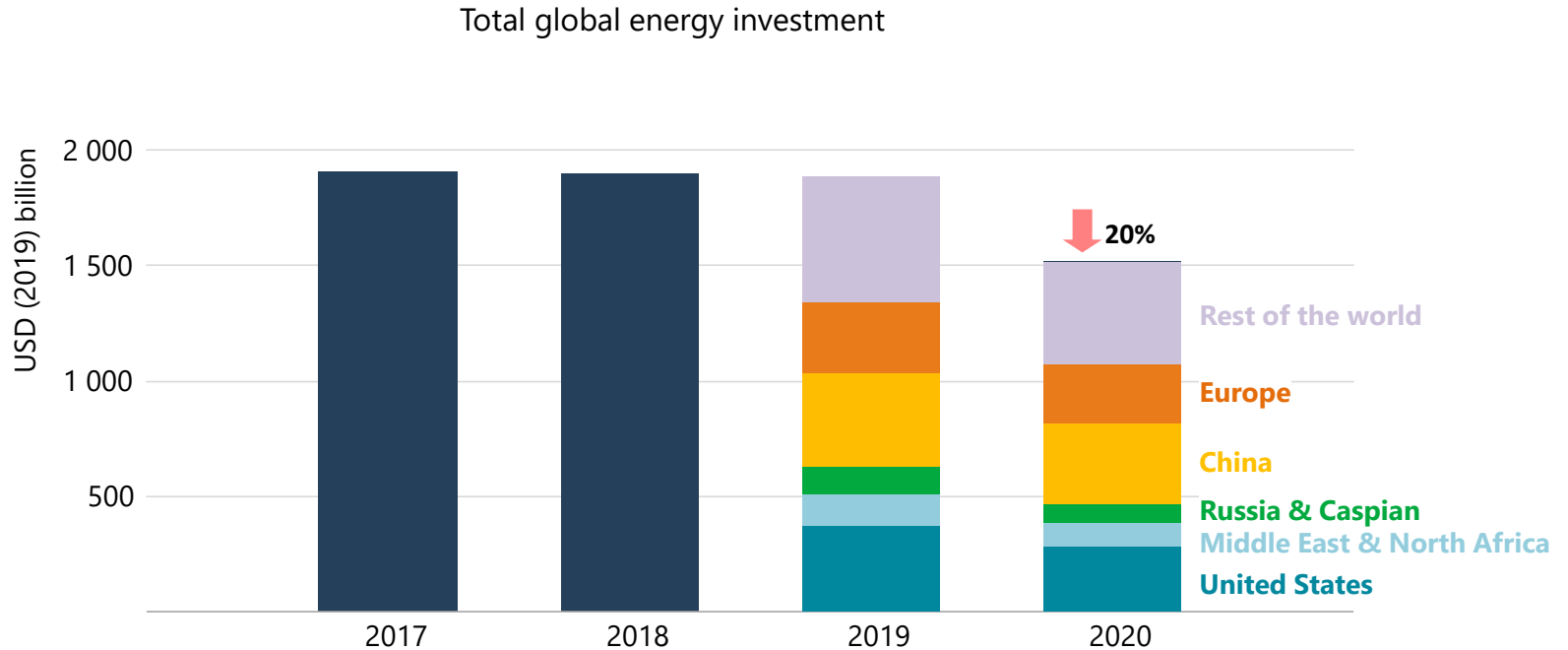
Pre-crisis expectations of a return to growth...

Total global energy investment based on pre-Covid-19 expectations



At the start of the year, expectations for 2020 pointed towards modest growth in renewables, upstream oil & gas and efficiency, pushing global energy investment up for the first time in recent years

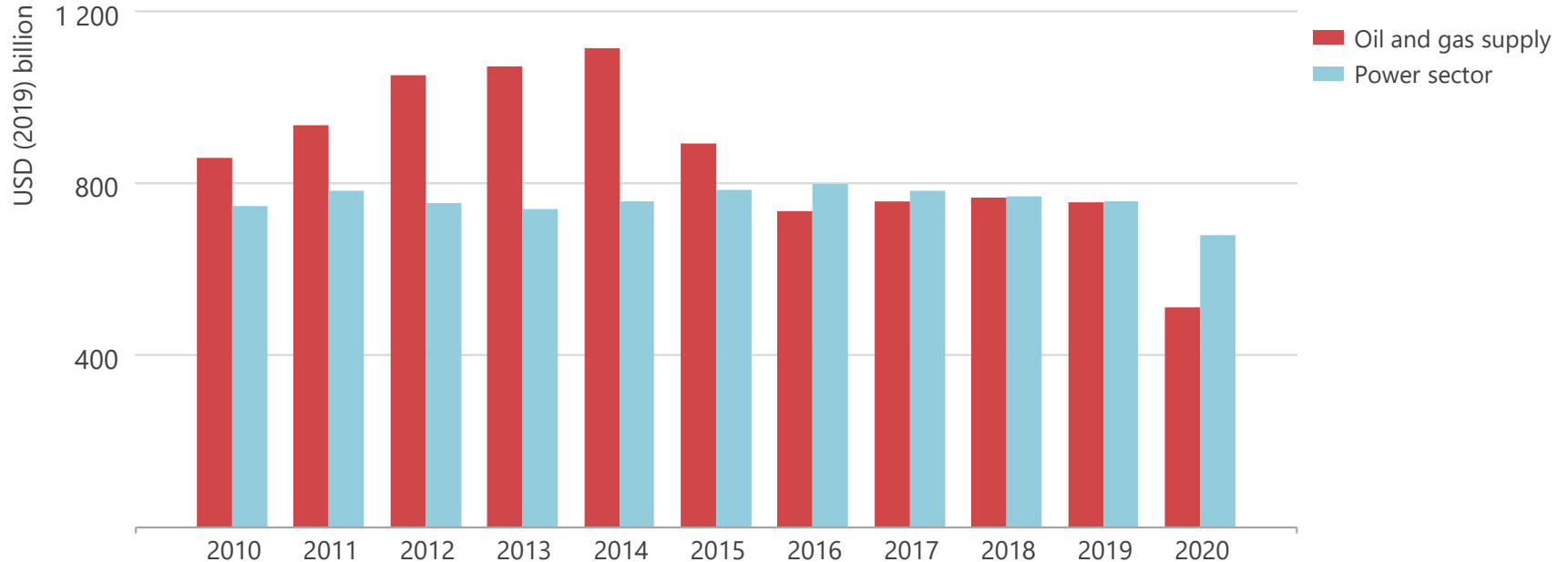
...have turned into an unparalleled decline in energy investment



Disruption from Covid-19 is expected to push 2020 energy investment down by almost \$400 billion. All parts of the world are affected, but major producers of oil & gas have seen the largest falls

The rollercoaster continues for oil and gas spending

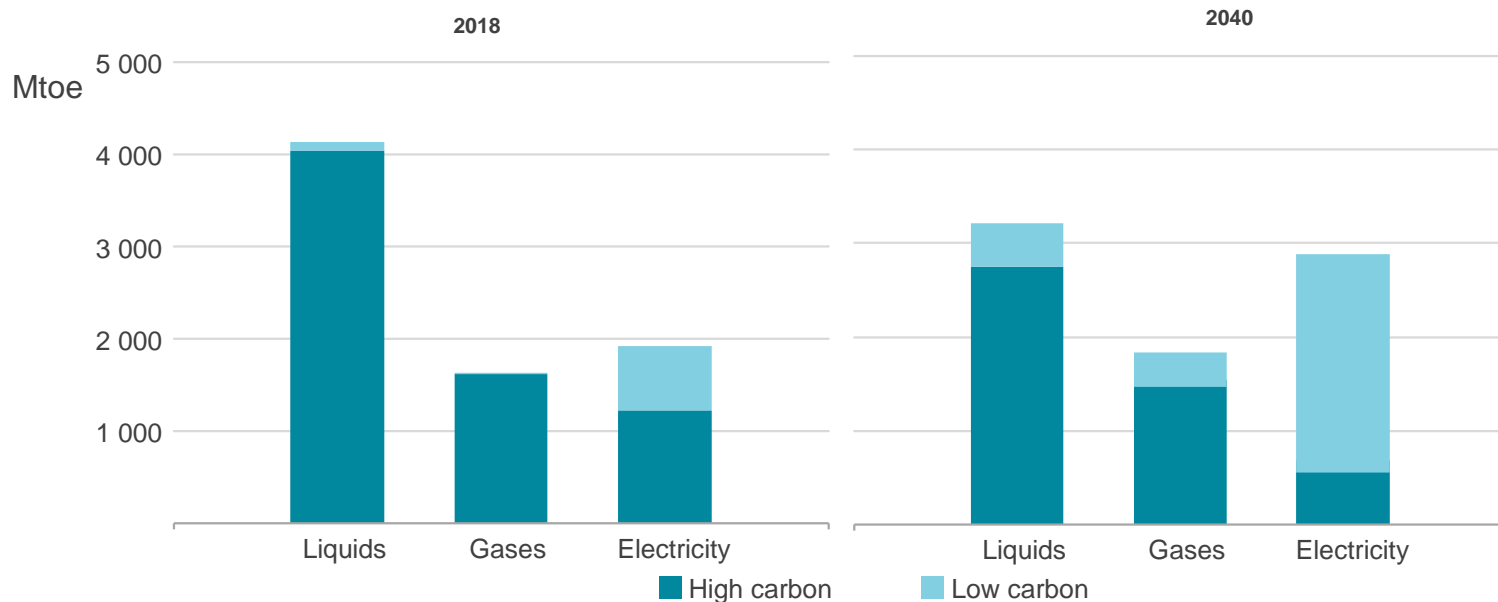
Global investment in oil and gas supply & the power sector



Investment in oil and gas supply has fallen by more than half since the high point of 2014. Power sector spending has been more robust - although well short of what a more electrified future would require

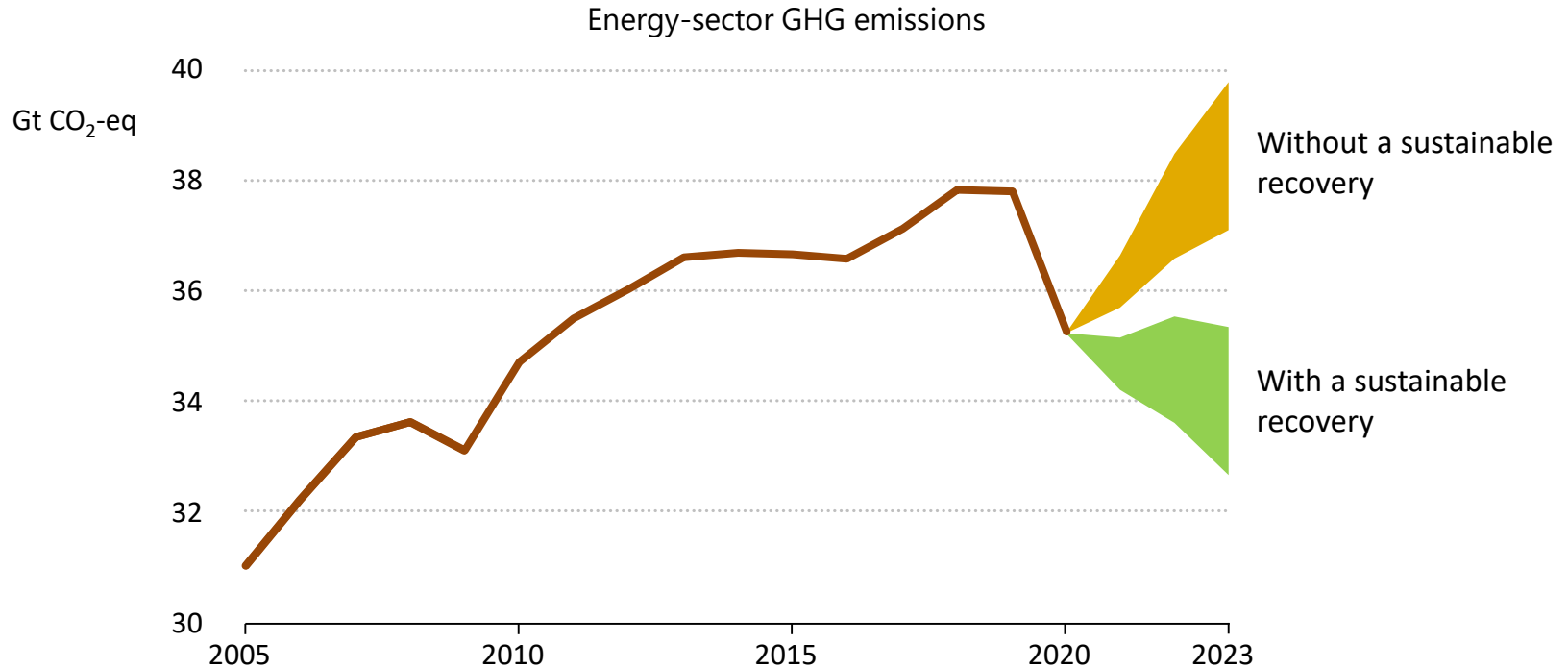
Electricity cannot be the only vector for an energy transformation

Final energy consumption by carrier in 2018 and 2040 in the Sustainable Development Scenario



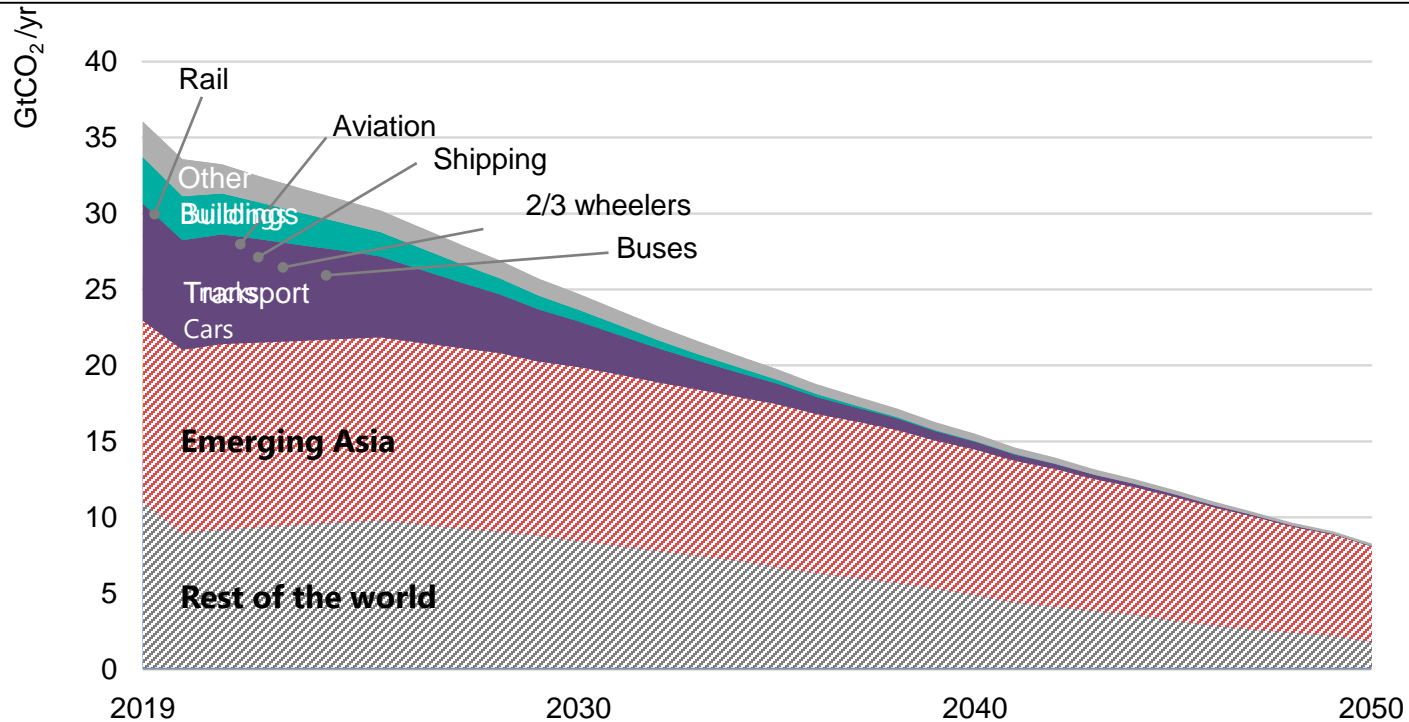
The 20% share of electricity in global final energy consumption is set to rise, but low-carbon sources of electricity cannot carry energy transitions on their own

Climate risks and opportunities depend on a sustainable recovery



Action on the IEA Sustainable Recovery Plan would help to boost economic growth and also make 2019 the definitive peak in global emissions,

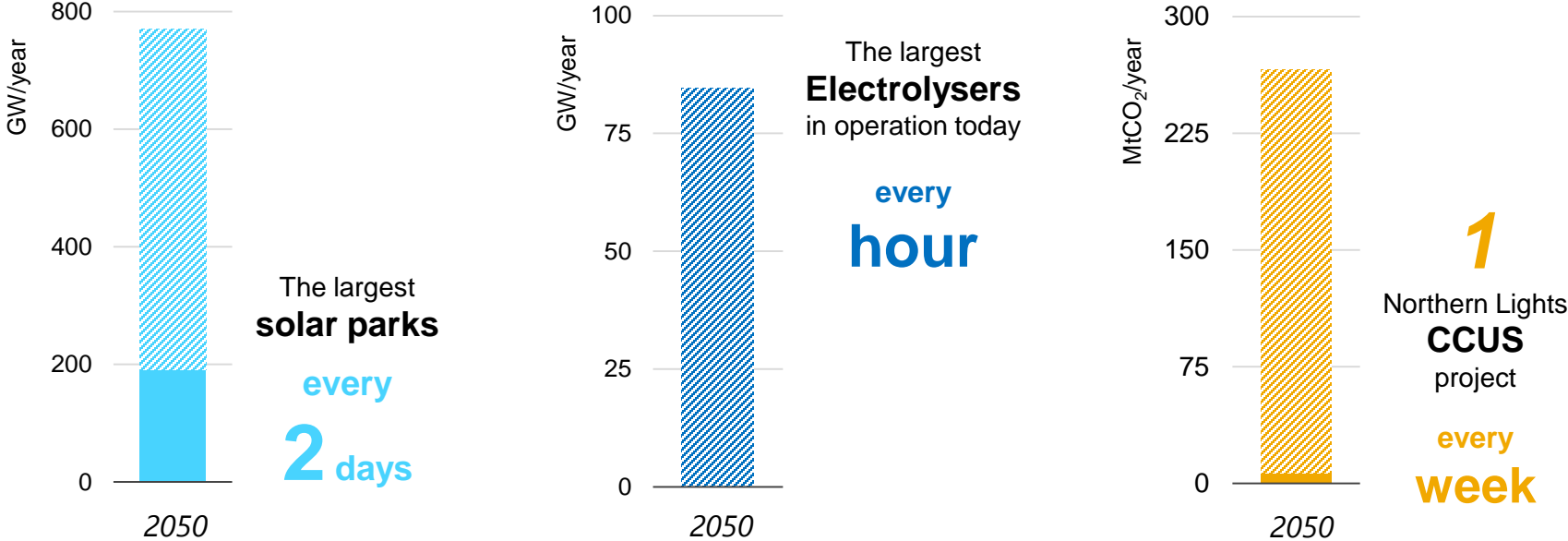
Our existing energy infrastructure is too big to ignore



Reaching net-zero emissions requires tackling emissions from long-lived assets in power generation and heavy-industries. In emerging Asia, 80% of existing coal power capacity was built in the past 20 years.

Net zero requires a major push to build clean energy infrastructure

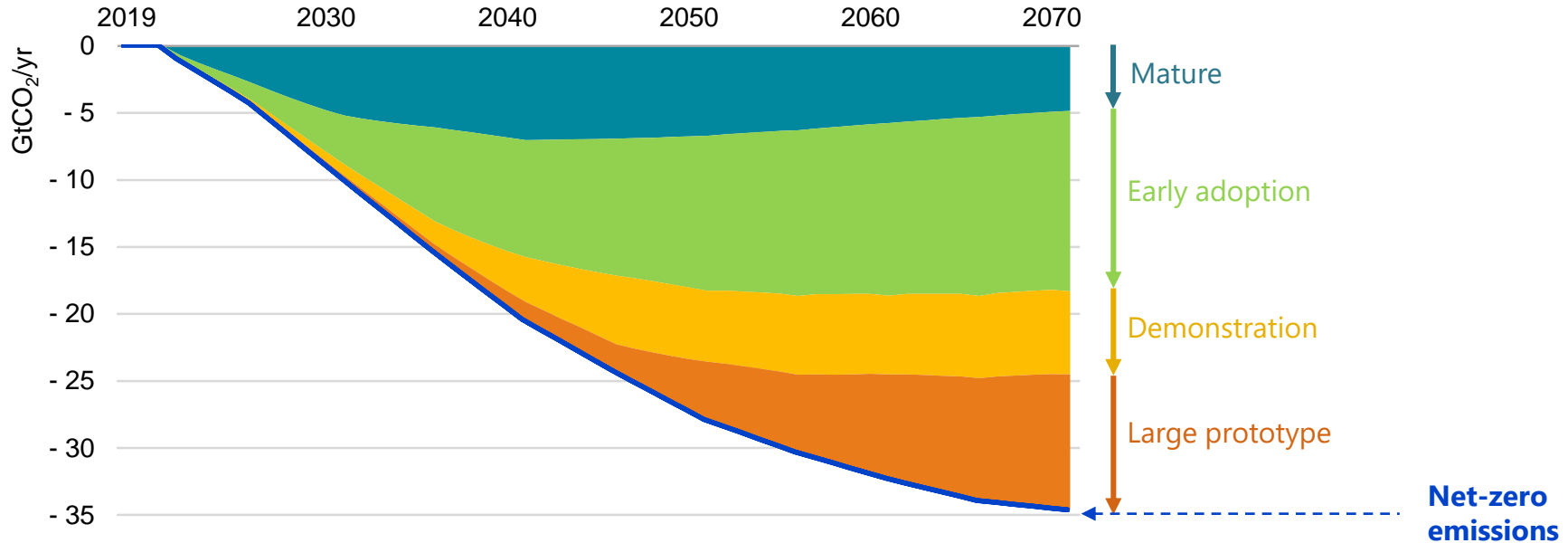
Selected indicators to reach net-zero emissions by 2050 through technology



Reaching net-zero emissions by 2050 would require a roll out of clean energy technologies & enabling infrastructure at unprecedented scale, even with significant changes to consumer behaviour.

Net-zero emissions is not viable without a lot more innovation

Global CO₂ emissions reductions in the Sustainable Development Scenario, relative to baseline trends



Technologies at prototype or demonstration stage today contribute almost 35% of the emissions reductions for net-zero; to reach net-zero by 2050 would require them to get to market twice as fast.

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