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.
Global consumer spending on electricity is set to be higher than oil for the first time in 2020. Lower demand & prices are squeezing the funds available for investment in new projects, especially in fuel supply.
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.
Upstream oil and gas spending has been slashed across the board

No company or resource type has been immune, although shale has been hit hardest. The scope for additional cost reductions today is limited, so cuts in spending feed through directly into reduced activity.
A new boom-and-bust cycle for oil markets?

Reduced investment in 2020 already brings down 2025 oil output by more than 2 mb/d, if investment stays at 2020 levels, this would reduce the previously-expected level of supply in 2025 by almost 9 mb/d.
Investment in power is faltering when it needs to pick up

Global power investment

Total investment in 2015 and 2020

Cumulative changes since 2015

Investment in solar PV and wind has held up, even as costs have come down, but spending on other aspects of a secure & sustainable system – grids, storage, flexibility – are lagging behind
Decisions to move ahead with new coal plants have fallen by 80% since 2015, but approvals in Q1 2020 – mostly in Asia – were at twice the rate seen in 2019: overall, the global coal fleet continues to grow.
Clean energy investment has been resilient, and insufficient

The uptick in the ‘clean’ share of total investment is not a breakthrough: absolute investment in energy transitions remain far short of what would be required for a more sustainable pathway.
Renewables have outperformed fossil fuels during the crisis

Total equity return comparison of fossil fuel supply vs renewable power companies in Europe and the United States

An indicative fossil fuel portfolio has fallen sharply since the start of 2020, while a renewables-focused one has tracked the market more closely, but financial investments in renewables still lack scale & liquidity.
Pathways out of the investment slump vary widely by country

The share of state-owned energy investments by sector in 2019

Developing economies rely much more heavily on state-backed spending, while advanced economies have a broader range of financing options, including from capital markets & institutional investors.
The crisis & recovery will affect turnover of the energy capital stock

Changes to the energy-related capital stock as a share of total stock in the preceding year

In many sectors, the crisis is likely to slow the rate at which new technologies and equipment are introduced; this is a warning sign for a system in need of rapid transformation.
Conclusions

• The Covid-19 pandemic has set in motion the largest drop in global energy investment in history, with spending expected to fall in every major sector this year.

• The crisis has shaken the oil and gas industry, especially shale: a one-third drop in global oil & gas investment could set the stage for a new boom-bust cycle if demand returns to its pre-crisis path.

• Electricity grids have been the backbone of energy systems during lockdown, but a downturn in spending on networks and flexible resources is a warning sign for the security of future power systems.

• Clean energy investment, especially for utility-scale renewables projects, has been relatively resilient in 2020 but remains far below the levels required to achieve a lasting reduction in global emissions.

• There is no single pathway out of the investment slump, but the response of policy makers – and whether energy and sustainability concerns are integrated into recovery strategies – will be critical.