Singapore Fintech Festival

Nov 2022

Sustainability Insights





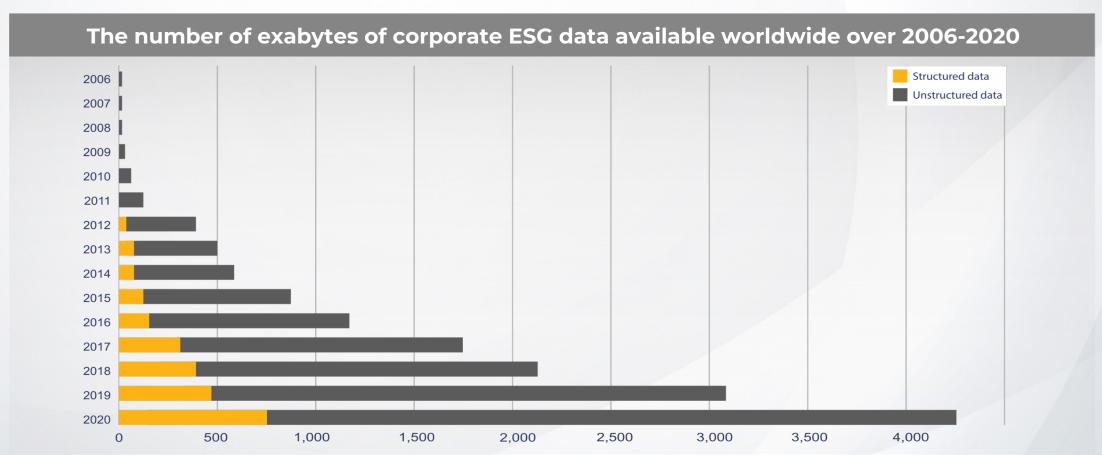
Net-zero is top-of mind for Europe and Americas



Source: ERM, What's Next For Sustainable Business?, (January 2022); Datamaran



Unstructured ESG data availability outstrips structured data



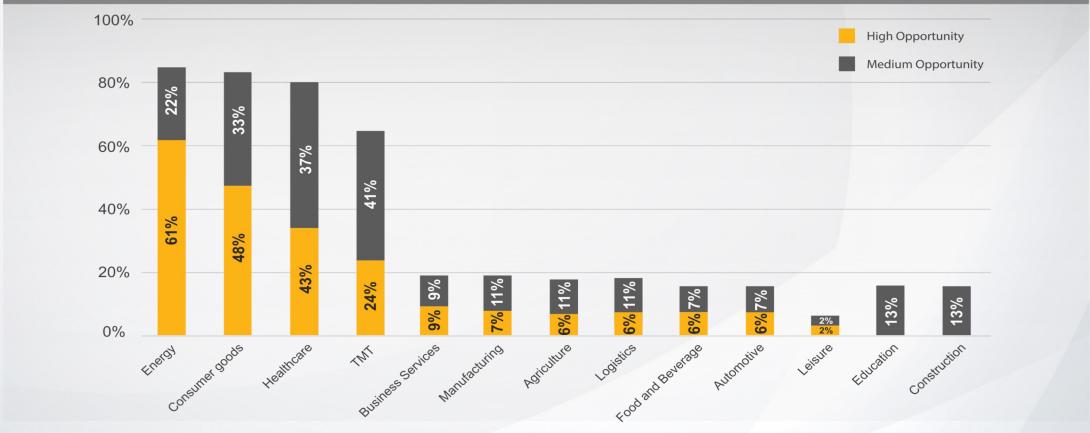
Source: ERM, What's Next For Sustainable Business? (January 2022). The number of exabytes of corporate ESG data available worldwide over 2006-2020 period. Tech Monitor





Greatest ESG investment opportunities



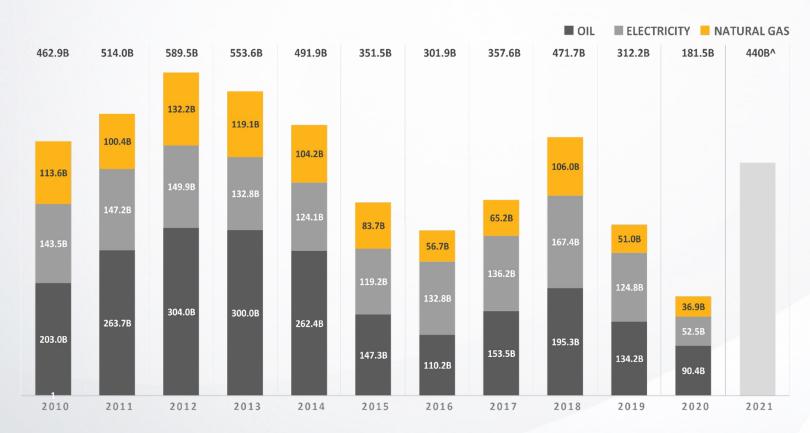


Source: ERM, What's Next For Sustainable Business?, (January 2022)
In 2020, ERM conducted a global survey of over 50 private equity firms. The chart shows the sectors that respondents identified as presenting the highest ESG investment opportunity in the next three to five years.





Fossil fuel consumption subsidies are set for their highest-ever yearly rise in 2021



Fossil fuel consumption subsidies occur when prices paid by consumers for fuel and electricity are lower than prices that reflect their full market value.

After reaching a decade low in 2020, these subsidies are set for their highest-ever yearly rise in 2021

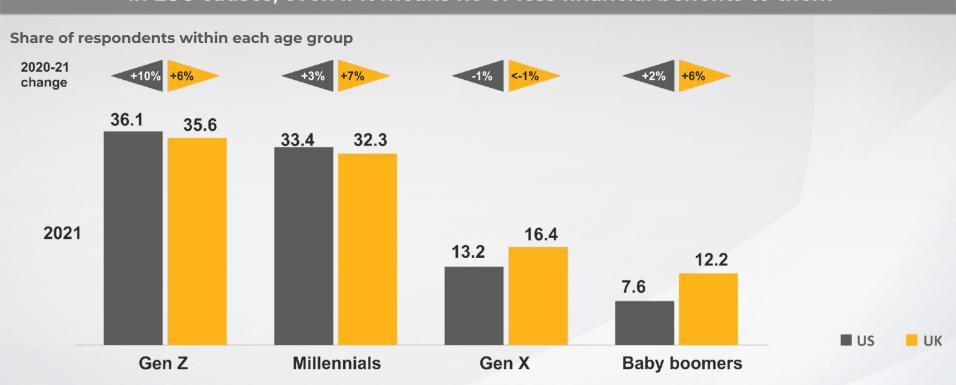
Source: Visual Capitalist (https://www.visualcapitalist.com/charted-5-trillion-in-fossil-fuel-subsidies/); International Energy Agency (IEA) Subsidy figures by fuel for are not available for 2021 \$440B is an IEA estimate





ESG demand in banking, driven by millennials and Gen Z

Consumers who would bank with the institution, whose profits will be re-invested in ESG causes, even if it means no or less financial benefits to them

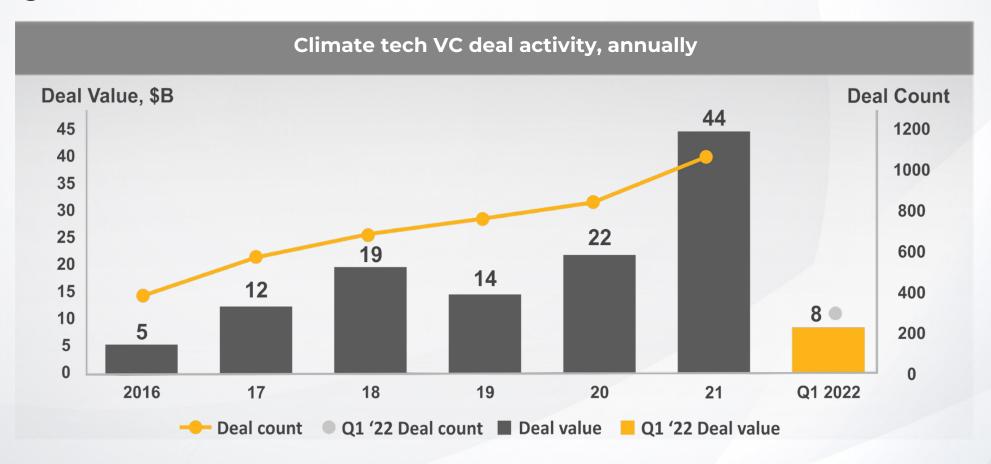


Source: McKinsey; Panorama Segmentation Team, Panorama Purpose in Banking Team





Climate tech deal activity remained elevated in Q1 2022

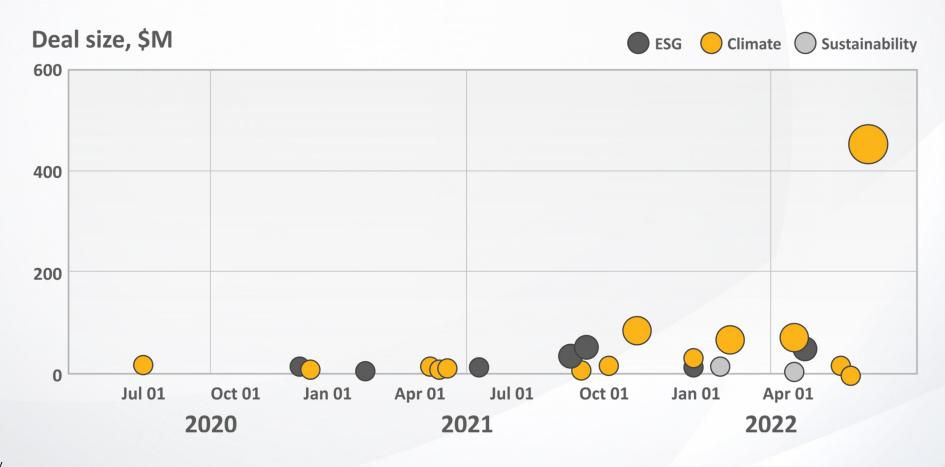


Source: McKinsey; PitchBook data, Geography Global





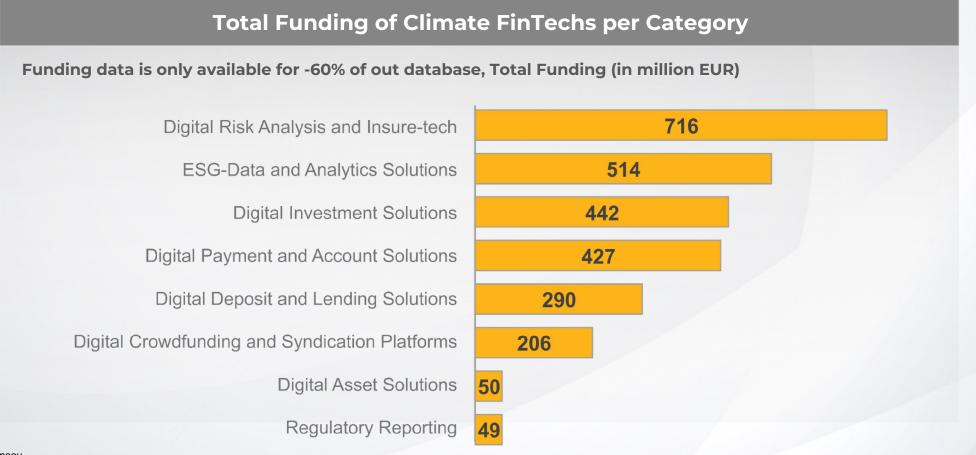
Carbon accounting platforms are becoming popular targets for VCs



Source: McKinsey



Majority of climate fintech funding has focused on digital risk analytics and insure-tech







Global investment in energy transition hit a record \$755bn in 2021, primarily driven by China

ENERGY TRANSITION INVESTMENT Top 10 Countries in 2021

Global investment in energy transition hit a record high of \$755B in 2021, up 27% relative to 2020.

Non-renewable energy transition investment includes: hydrogen, nuclear, carbon capture, electrified transport, electrified heat, energy storage, sustainable materials

Renewable energy investment

Top 10
Total
S561B

S318

S318

S318

S318

SS-by-epergy-transition-investment/): BloombergNEE

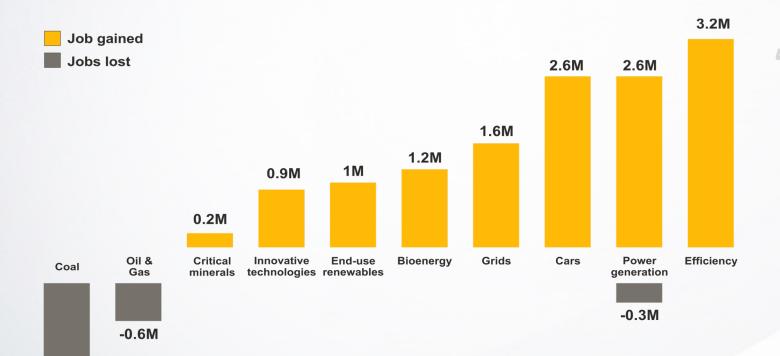
The top 10 countries accounted for 74% of global energy transition investment.

Source: Visual Capitalist (https://www.visualcapitalist.com/ranked-the-top-10-countries-by-energy-transition-investment/); BloombergNEF





13.3m clean energy jobs will be created by 2030...



The estimated jobs lost are concentrated in fossil fuels as **demand decreases.**

A full net-zero transition would result in even greater employment growth, with an estimated net total of **+22.7** million jobs.

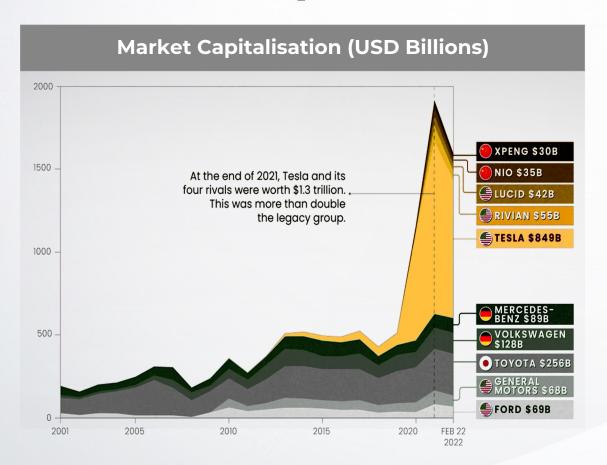
Source: Visual Capitalist (https://www.visualcapitalist.com/visualized-a-global-risk-assessment-of-2022-and-beyond/); International Energy Agency World Energy Outlook 2021

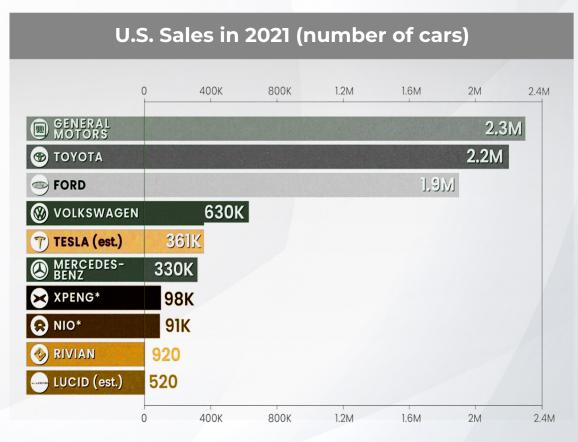


-2.1M



Electric vehicle manufacturing is lagging investor expectations...



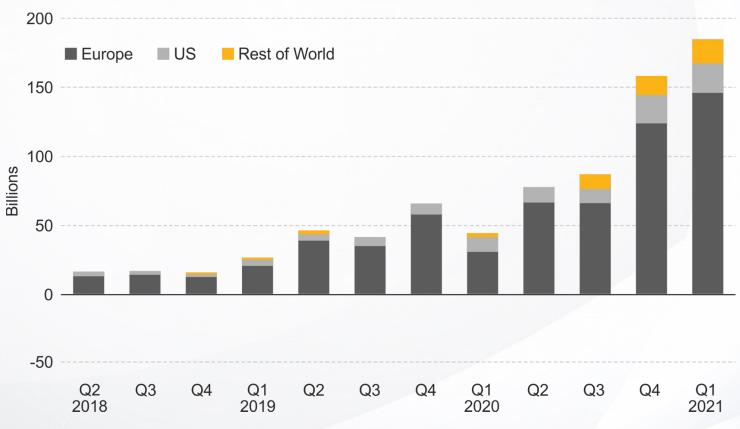


Source: VisualCapitalist (https://www.visualcapitalist.com/putting-ev-valuations-into-perspective/)





In 2025 ESG assets are expected to account for more than a third of global AUM

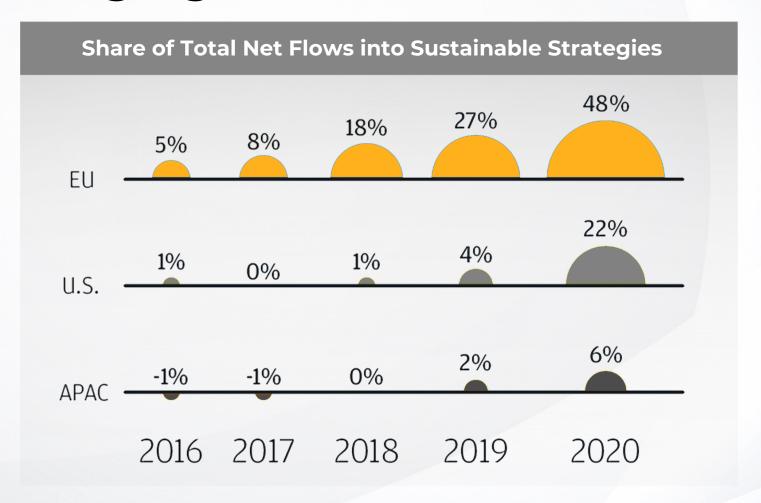


Source: WEF Quarterly global sustainable fund flows, as of March 2021 Image: Morningstar Direct, Manager Research





ESG is changing the nature of investment flows

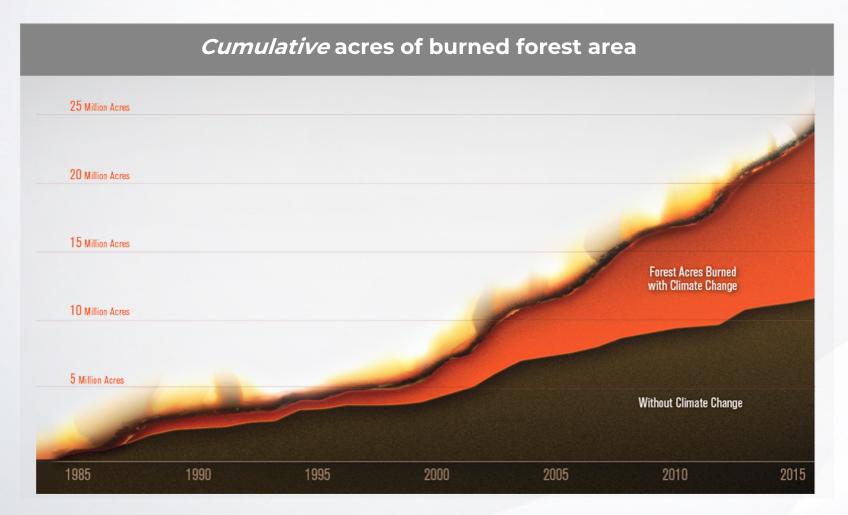


Source: Visual Capitalist (https://www.visualcapitalist.com/7-esg-essentials-investors-need-to-know/); J.P. Morgan Asset Management, Morningstar, Data as of June 30, 2021.





Climate change is growing western forest fires



While data is only collected up until 2015, current trends show that contributions from climate change-induced wildfires are continuing to increase year after year.

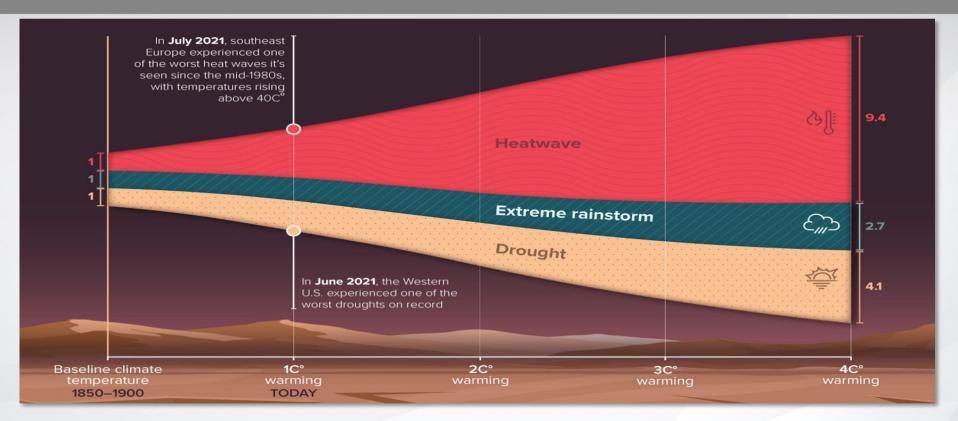
Source: Visual Capitalist (https://www.visualcapitalist.com/how-climate-change-is-influencing-wildfires/)





Catastrophic climate events are set to increase exponentially as temperatures keep rising



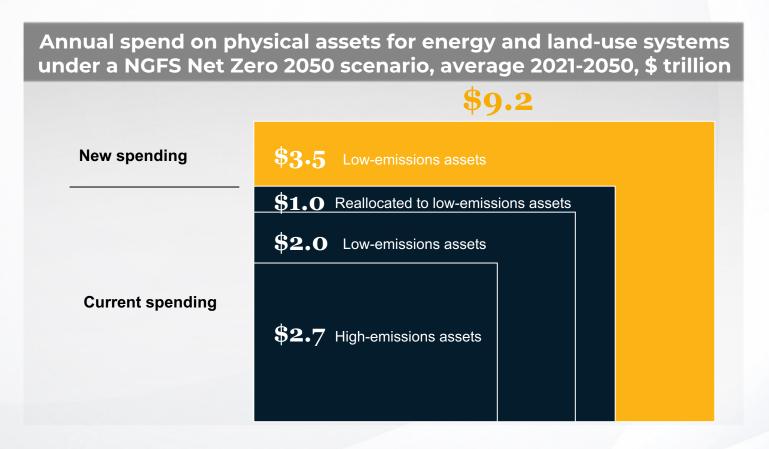


Source: Visual Capitalist (https://www.visualcapitalist.com/the-accelerating-frequency-of-extreme-weather/); IPCC





Reaching net-zero emissions requires \$9.2 trillion in annual spending on physical assets



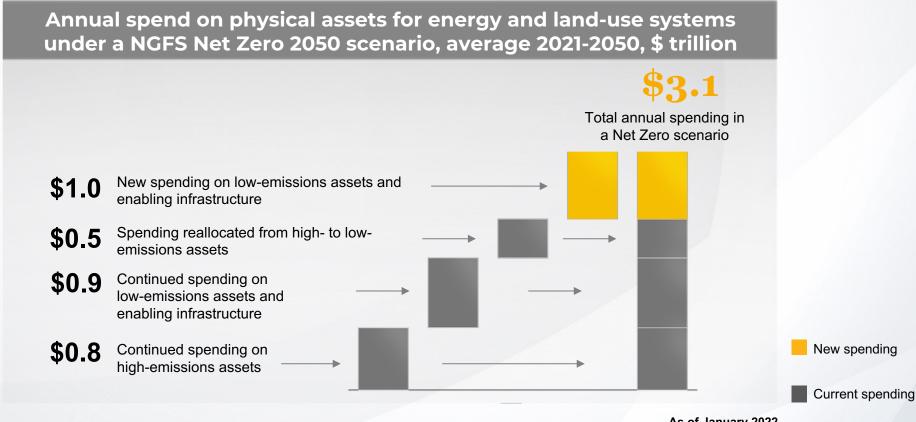
Source: McKinsey & Company

The net-zero transition: What it would cost, what it could bring, February 2022. Based on the NGFS Net Zero 2050 scenario, a hypothetical scenario and not a projection.





Reaching net zero emissions in APAC requires \$3.1 trillion in annual spending



Source: McKinsey & Company

The net-zero transition: What it would cost, what it could bring, February 2022. Based on the NGFS Net Zero 2050 scenario, a hypothetical scenario and not a projection.

As of January 2022

All countries in Asia Pacific region excluding Australia and New Zealand





Divestments by established players do not always lead to de-carbonization

BP Alaska oil & gas divestment



2019



8.2%

Increase in assets' CO₂ emissions under new ownership

ConocoPhillips San ConocoPhillips

Juan Basin oil field divestment

2017



>20%

Increase in assets' greenhouse gas emissions under new ownership

3 Engie European coal generation exit



2019



~0%

Reduction in assets' CO₂ emissions under new ownership

Vattenfall divested their coal business to EPH



2016

EPH plans to keep the plants operational until the **government mandated** shutdown in 2038

5 BHP metallurgical coal joint venture divestment



2021

BHP divested an 80% ownership stake in its coal JV (BMC) to Stanmore SMC Holdings, which has no net-zero emissions goal

Source: McKinsey analysis, Bloomberg News, New York Times, US EPA GHGRP Data, Politico



