



Net Zero Roadmap:

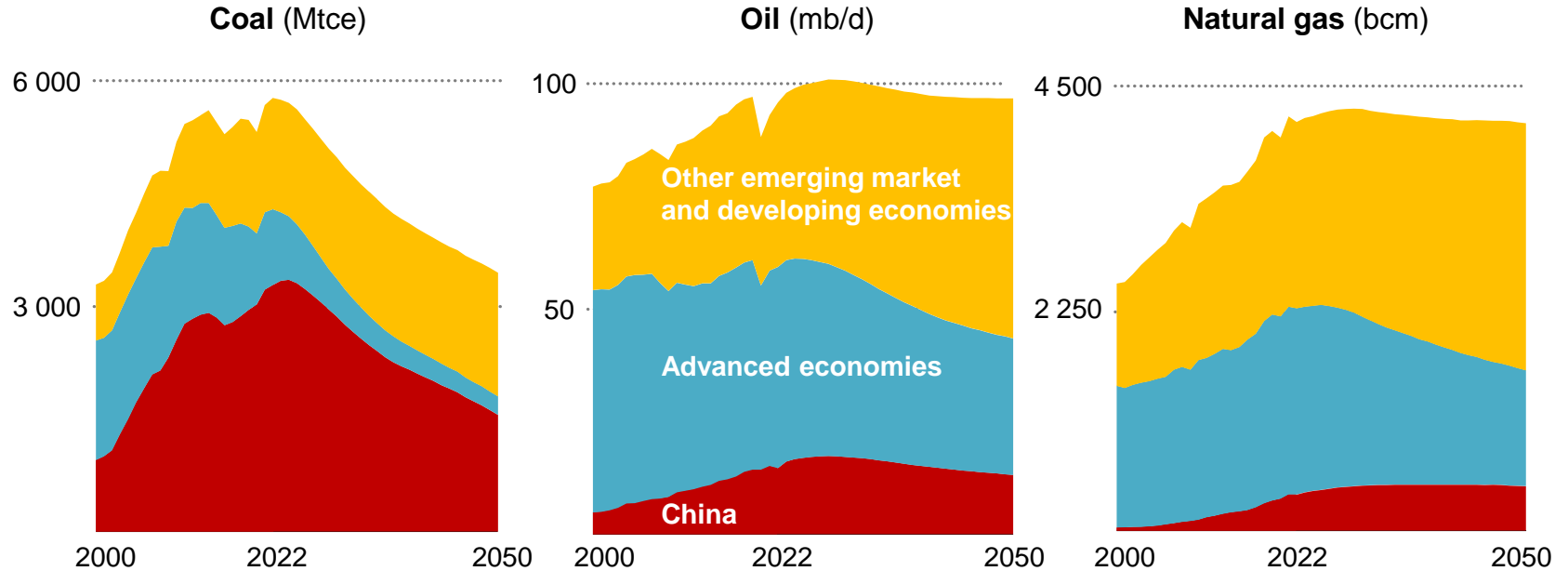
A Global Pathway to Keep the 1.5 °C Goal in Reach – 2023 Update

Julie Dallard

Paris, 10 June 2024

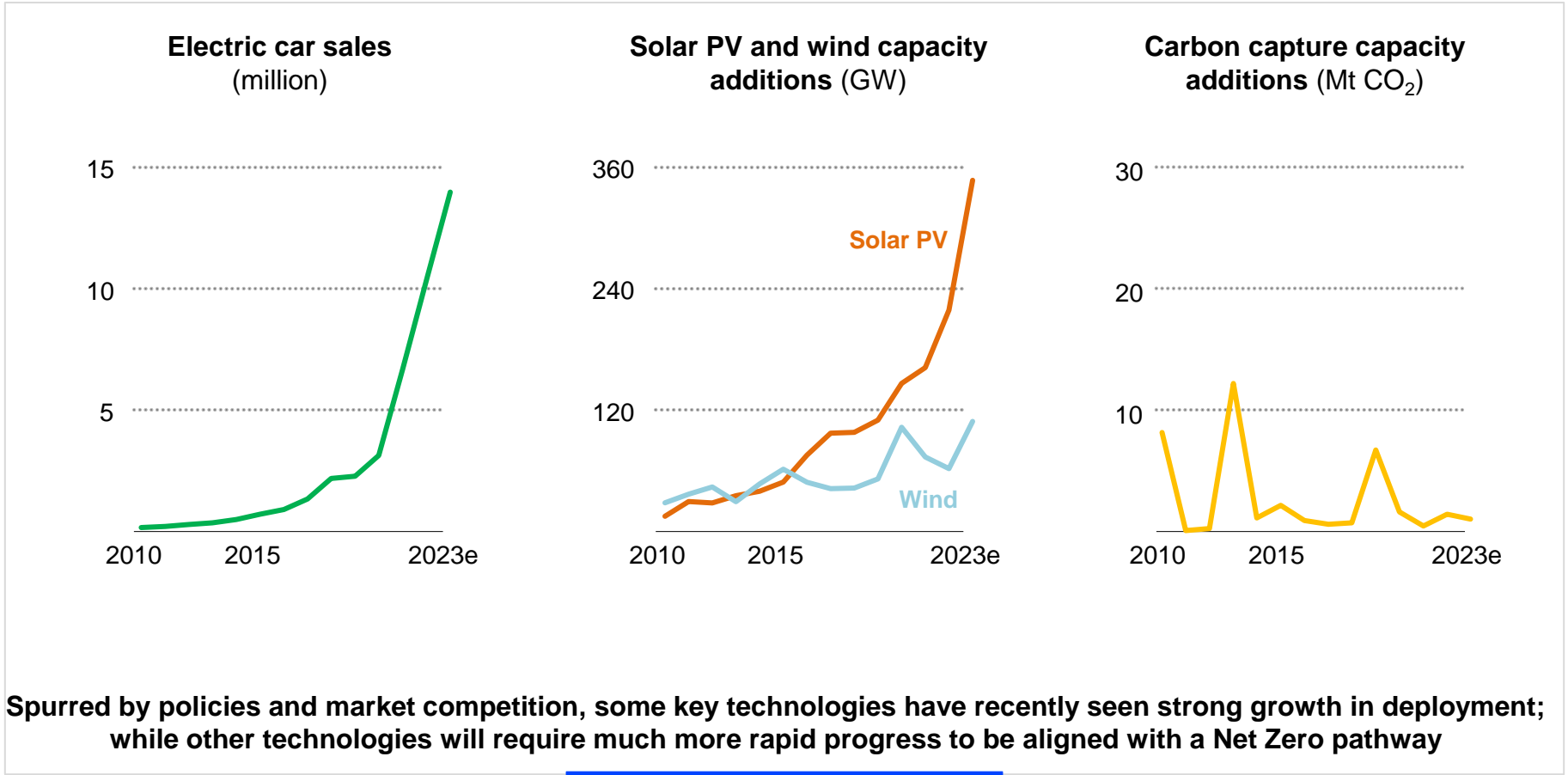
On track for a peak in all fossil fuels before 2030

Fossil fuel demand in the Stated Policies Scenario (STEPS)



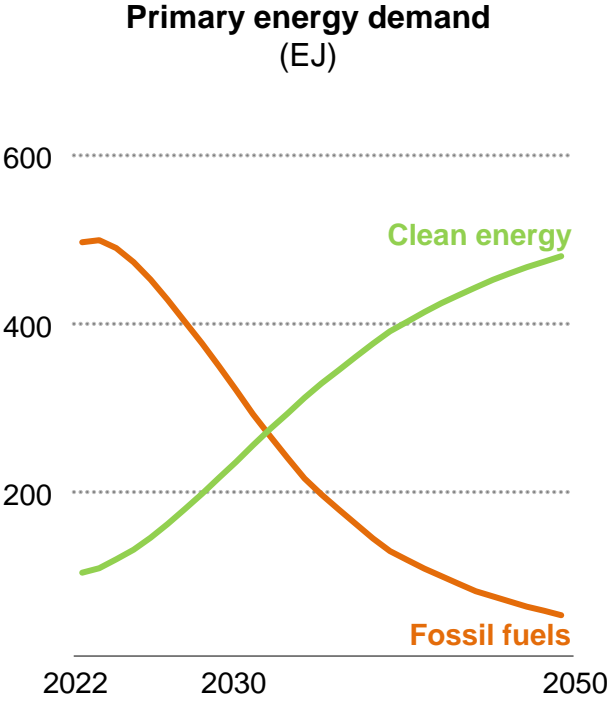
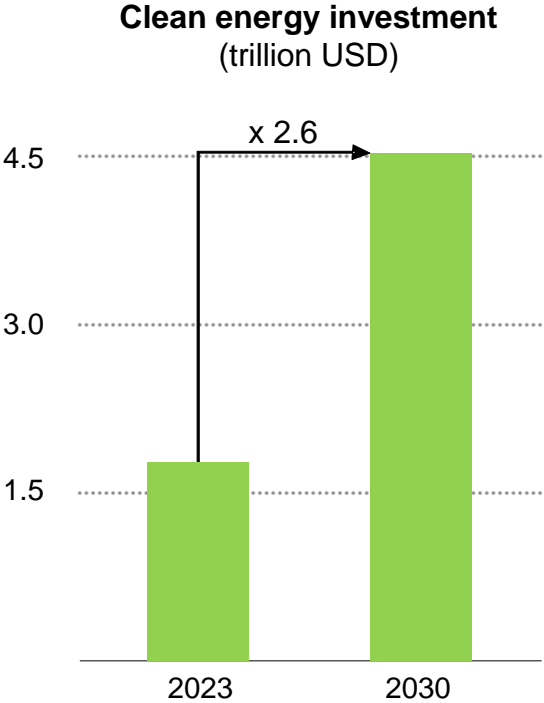
For the first time, today's policy settings are strong enough to generate peaks for coal, oil and natural gas this decade; the share of fossil fuels starts to edge downwards from 80% today to 73% in 2030

Clean energy growth is keeping the door to 1.5 °C open



Spurred by policies and market competition, some key technologies have recently seen strong growth in deployment; while other technologies will require much more rapid progress to be aligned with a Net Zero pathway

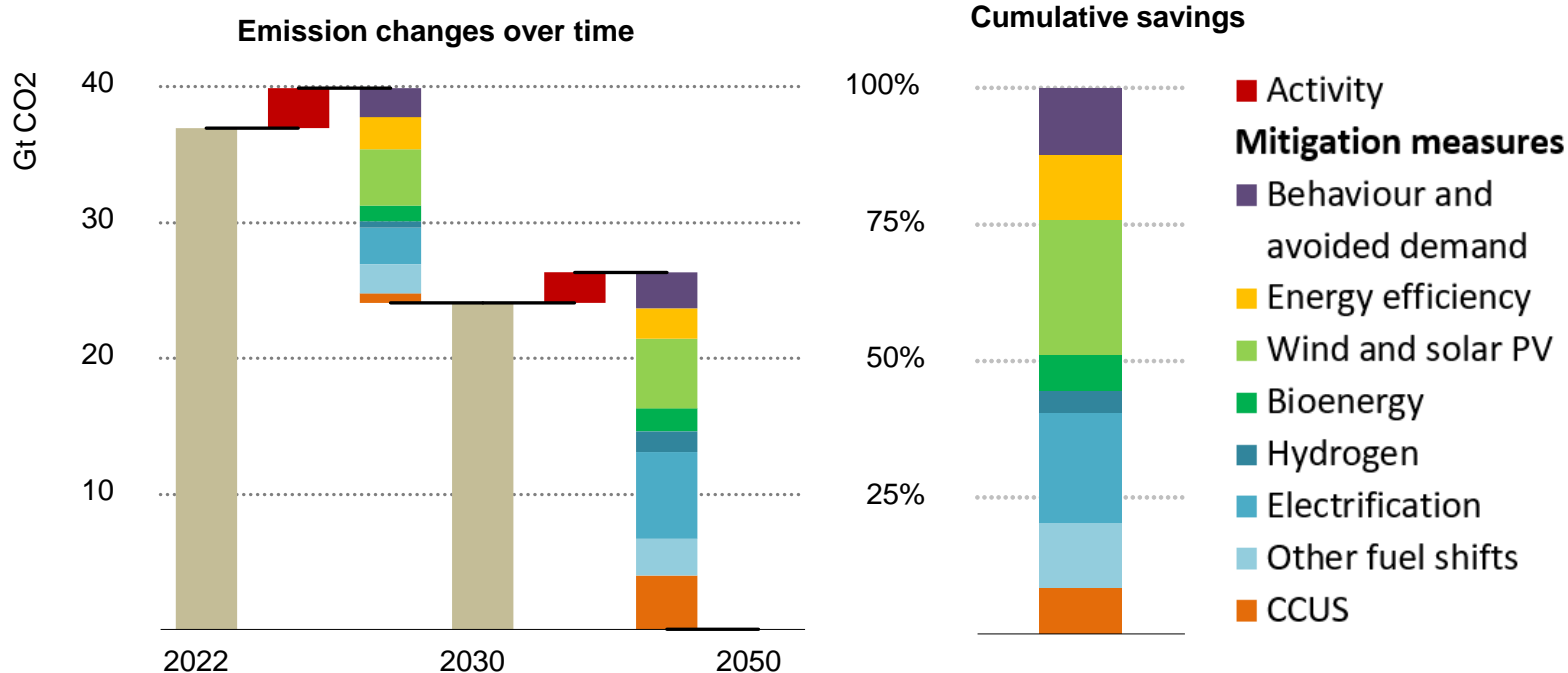
Strong growth in clean energy drives a decline in fossil fuel demand



Clean energy investment needs to grow from USD 1.8 trillion today to USD 4.5 trillion in 2030. As clean energy grows and fossil fuel demand declines, there is no need for investment in new coal, oil and natural gas.

Measures to reach NZE by 2050

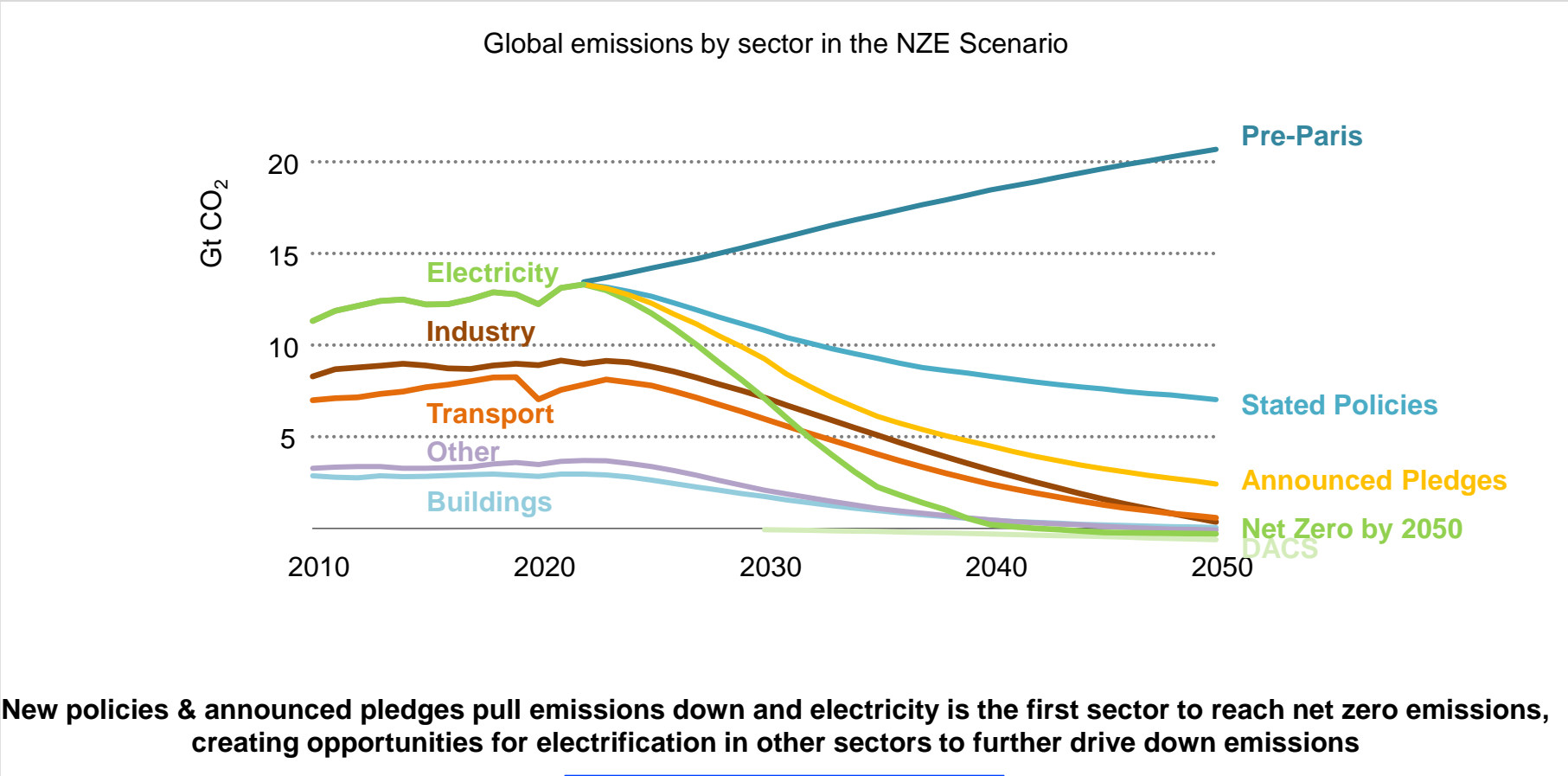
CO2 emissions reductions by mitigation measure in the NZE Scenario, 2022-2050



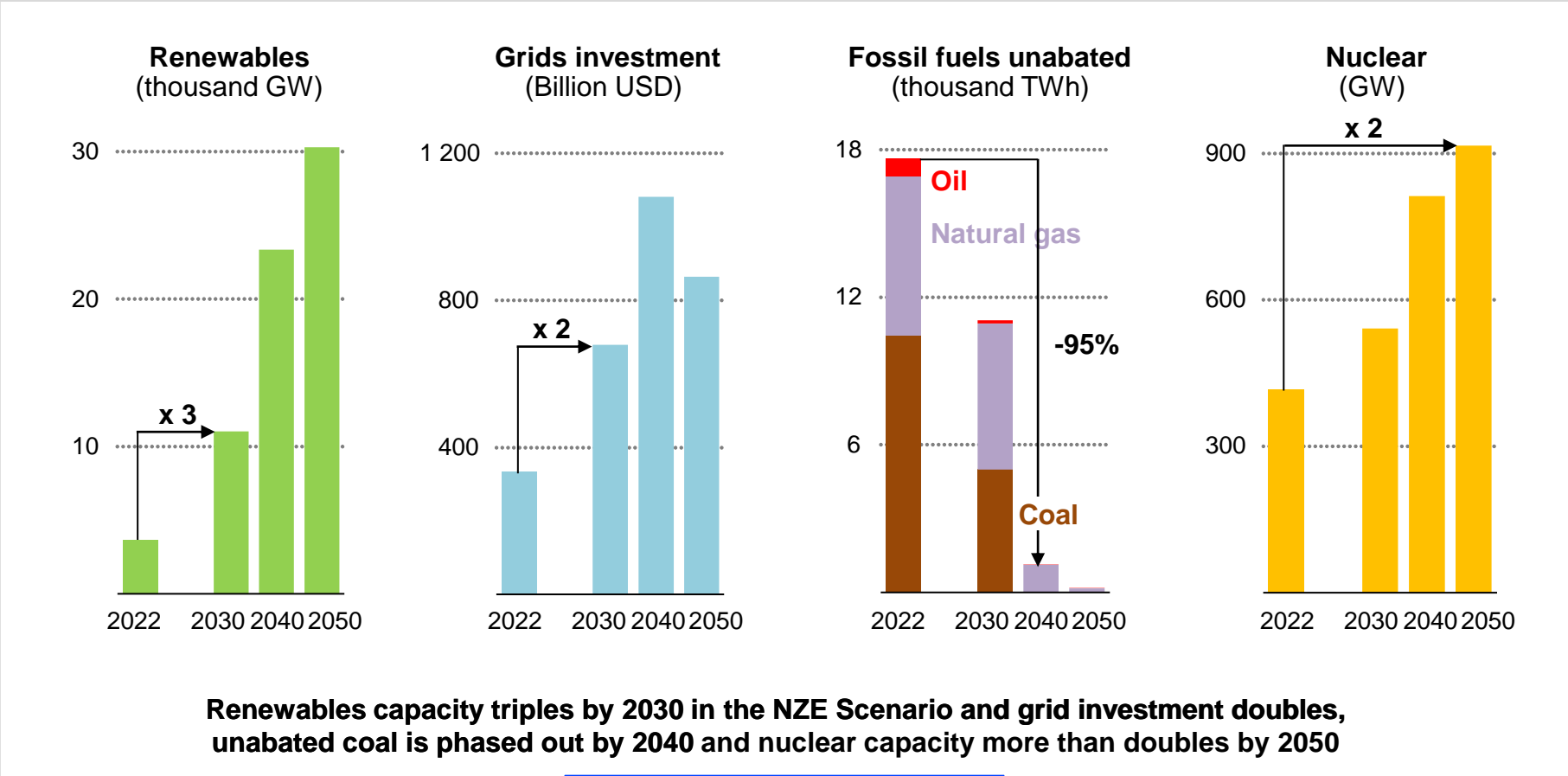
Notes: Activity = energy services demand changes from economic and population growth. CCUS includes BECCS and DACS

Expansion of solar PV, wind and other renewables, energy intensity improvements and direct electrification of end-uses combined contribute 80% of emission reductions by 2030

Electricity leads the way to net zero

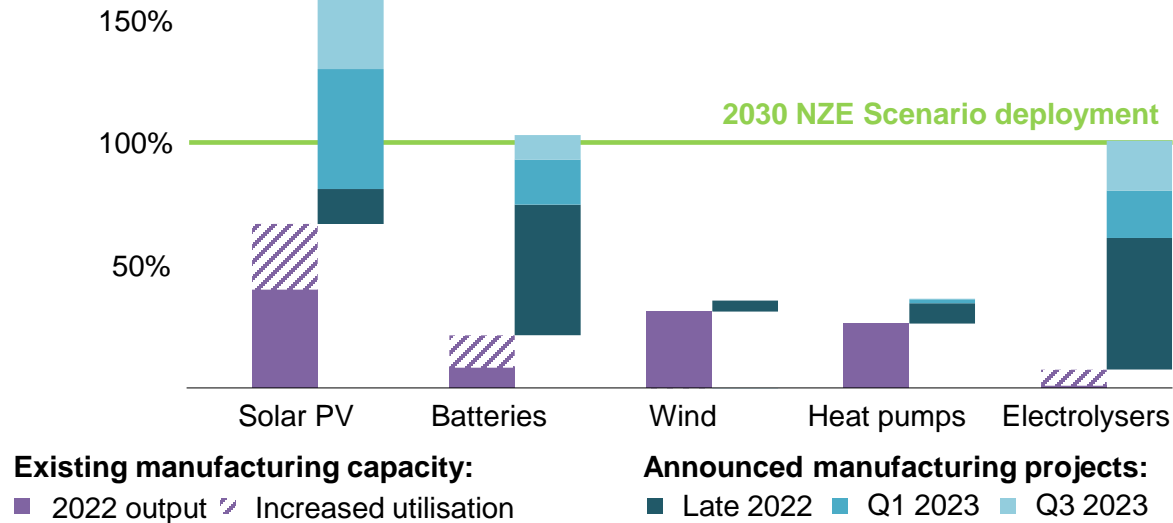


Electricity systems are re-imagined for net zero electricity



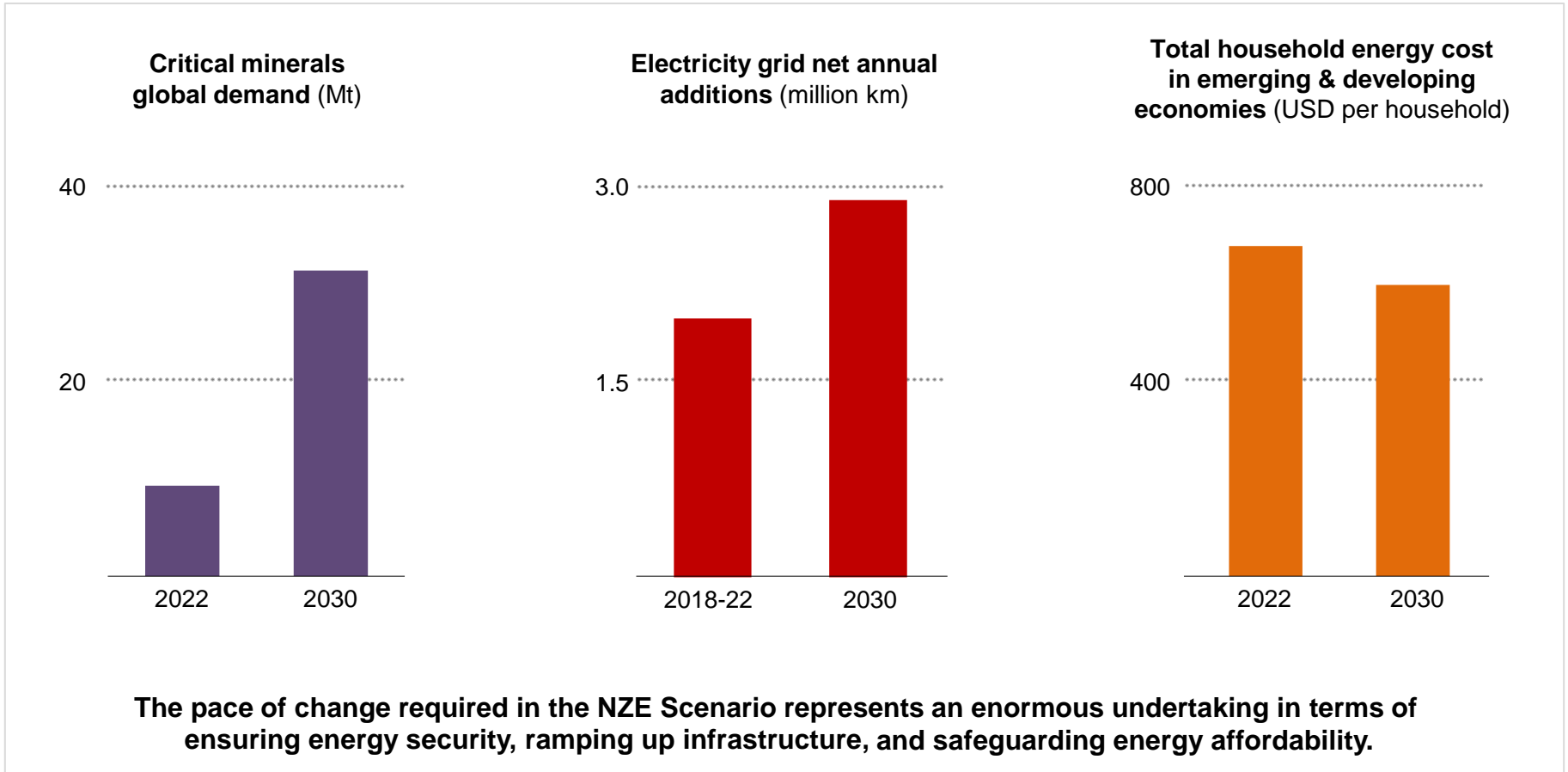
Clean energy manufacturing is booming

Current and announced manufacturing capacities relative to 2030 NZE Scenario deployment needs



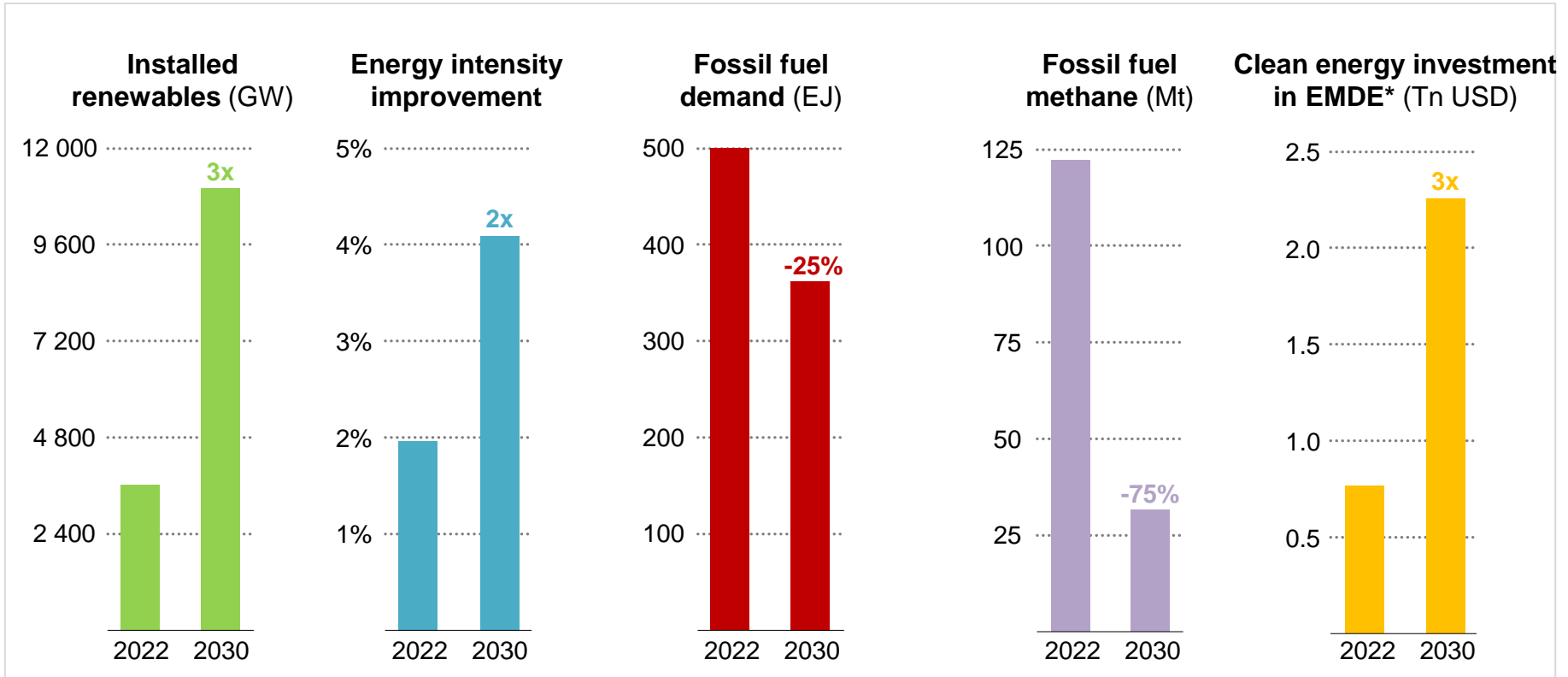
Driven by supportive policies and the growing geopolitical and commercial stakes of the industry, clean energy manufacturing capacity is booming, although it remains uneven across technologies and highly concentrated

Managing the risks and opportunities that arise in energy transitions



The pace of change required in the NZE Scenario represents an enormous undertaking in terms of ensuring energy security, ramping up infrastructure, and safeguarding energy affordability.

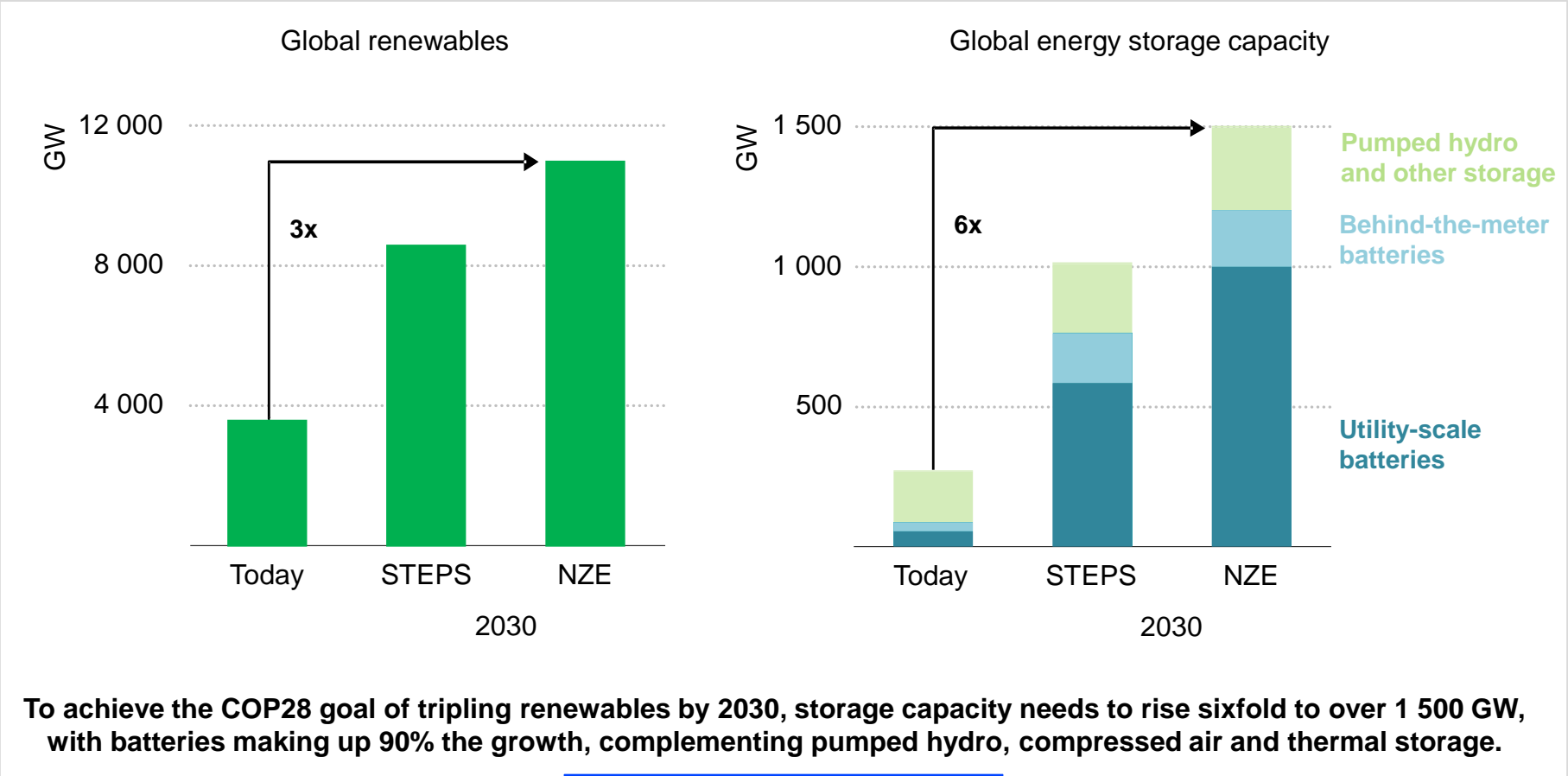
Five pillars to keep 1.5 °C alive



A comprehensive energy package for COP28 needs to drive the growth in clean energy, support emerging and developing economies in the transition, and recognise the need to reduce fossil fuel demand

iea

Batteries play a critical role in tripling renewables by 2030



EV competitiveness: key for oil use reduction and efficiency goals

