

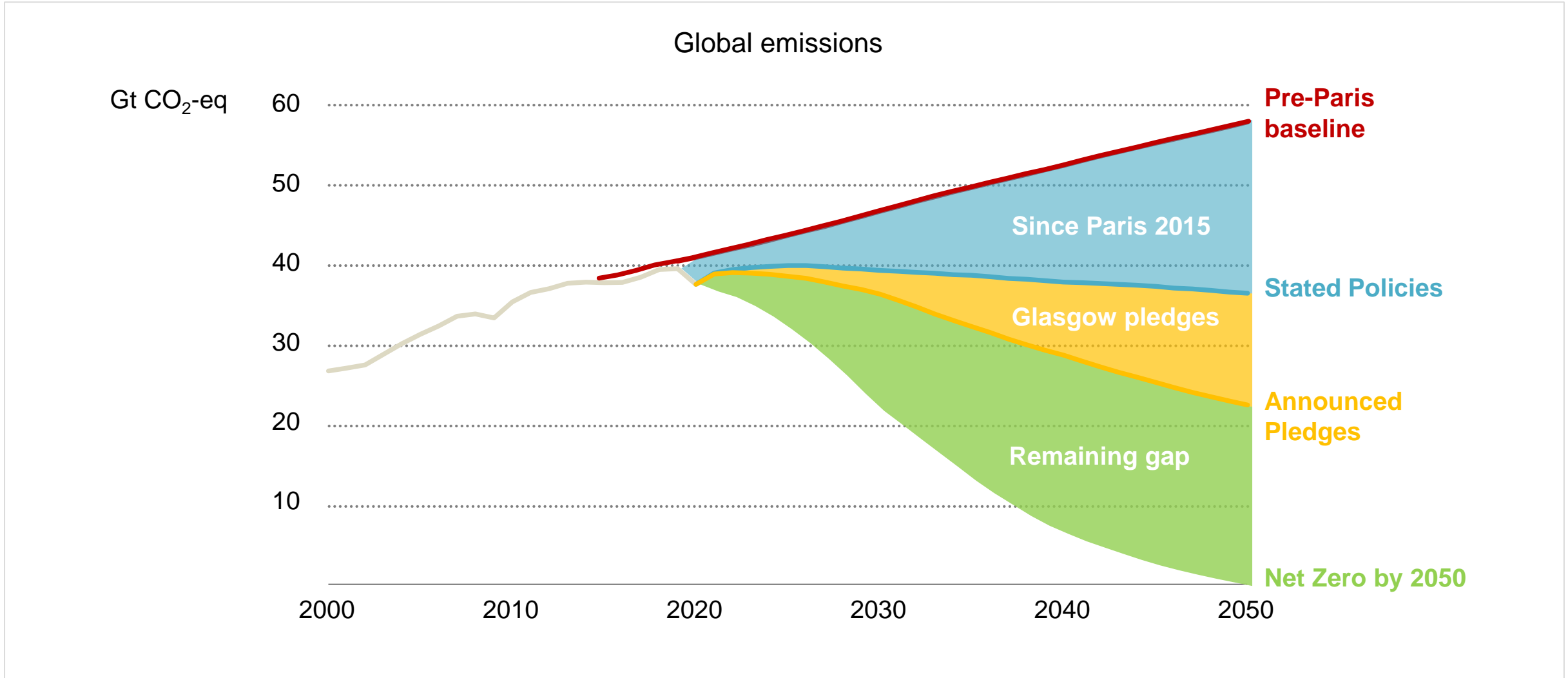


Net Zero by 2050: a Roadmap for the Global Energy Sector

Peter Fraser, Head of Gas, Coal and Power Markets Division

IPPSA Conference, 15 November 2021

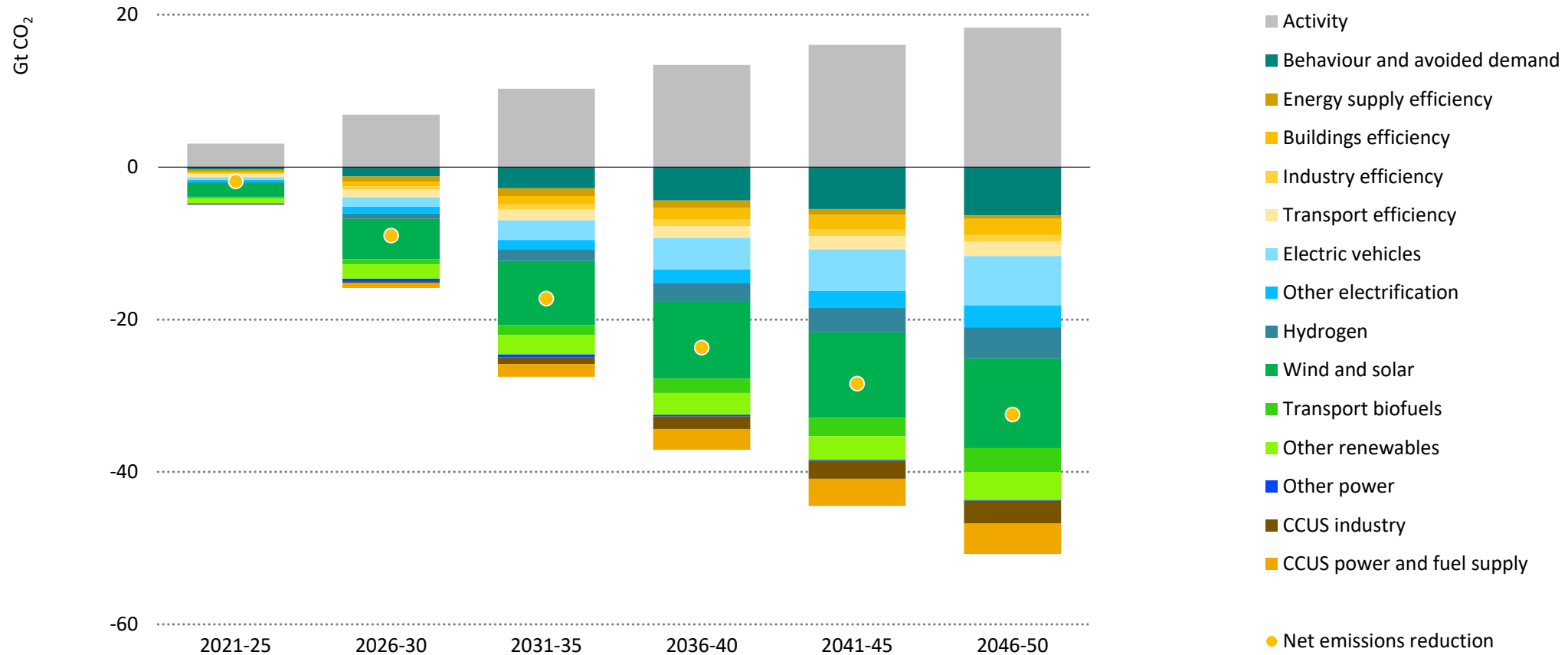
A large gap remains to 1.5 degrees



Despite some positive signs, today's pledges close less than 20% of the gap to the Net Zero by 2050 scenario: countries with net zero pledges and countries without each account for about half the remaining ambition gap

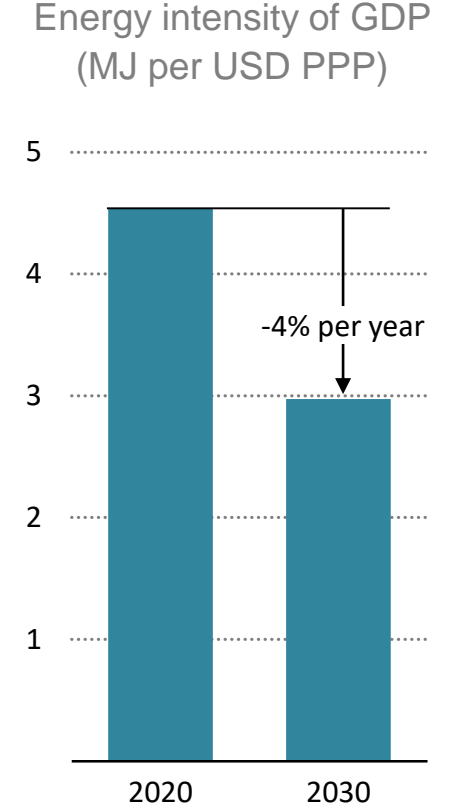
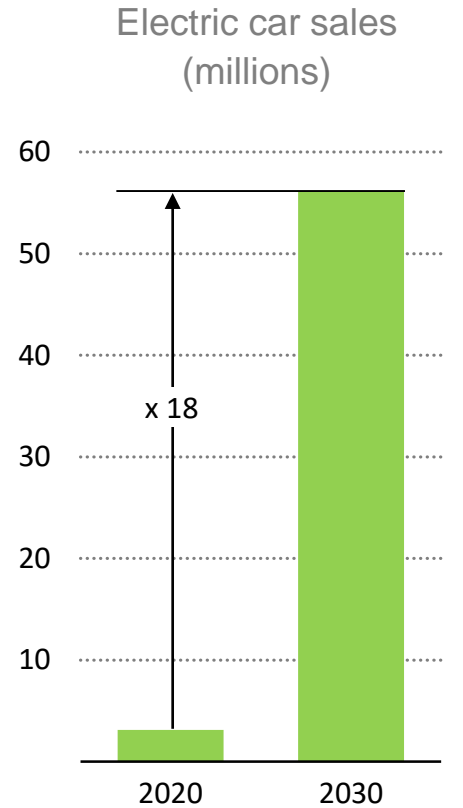
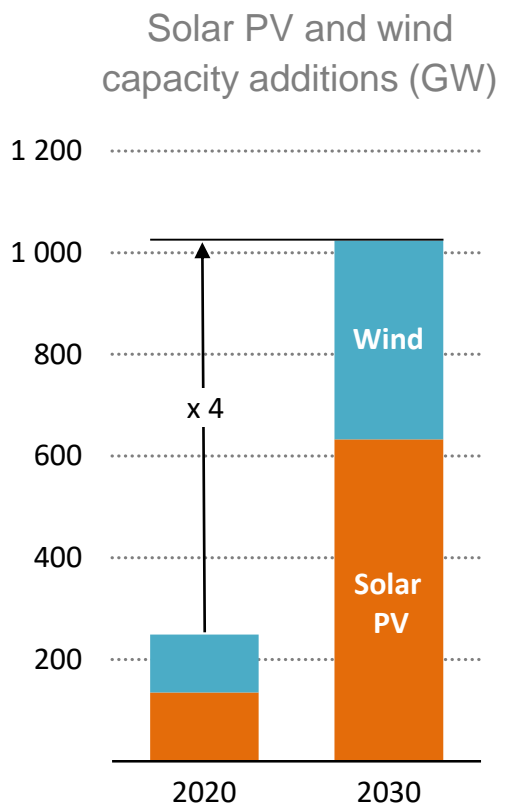
Net zero will take more than “electrify everything”

Average annual CO2 reductions from 2020 in the NZE



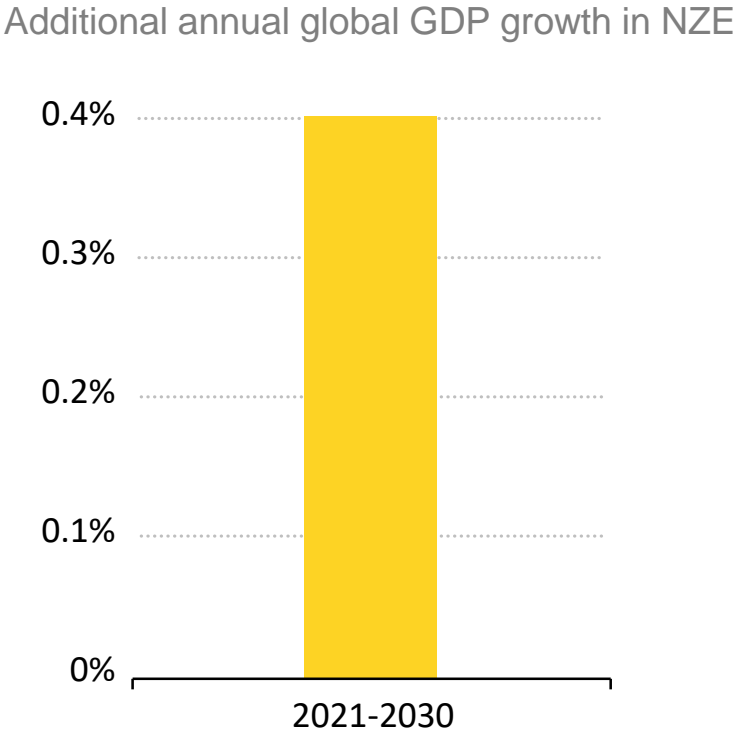
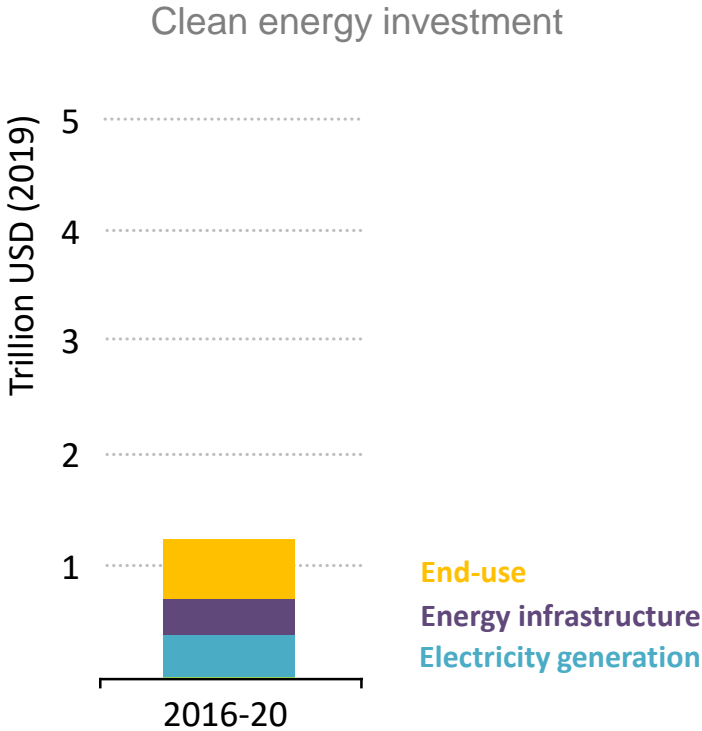
Efficiency, decarbonising generation, electrification, hydrogen, biofuels, and CCUS are all needed

Huge push on renewables, electrification and efficiency needed this decade



Technologies for achieving the necessary deep cuts in global emissions by 2030 exist, but staying on the narrow path to net-zero requires their immediate and massive deployment.

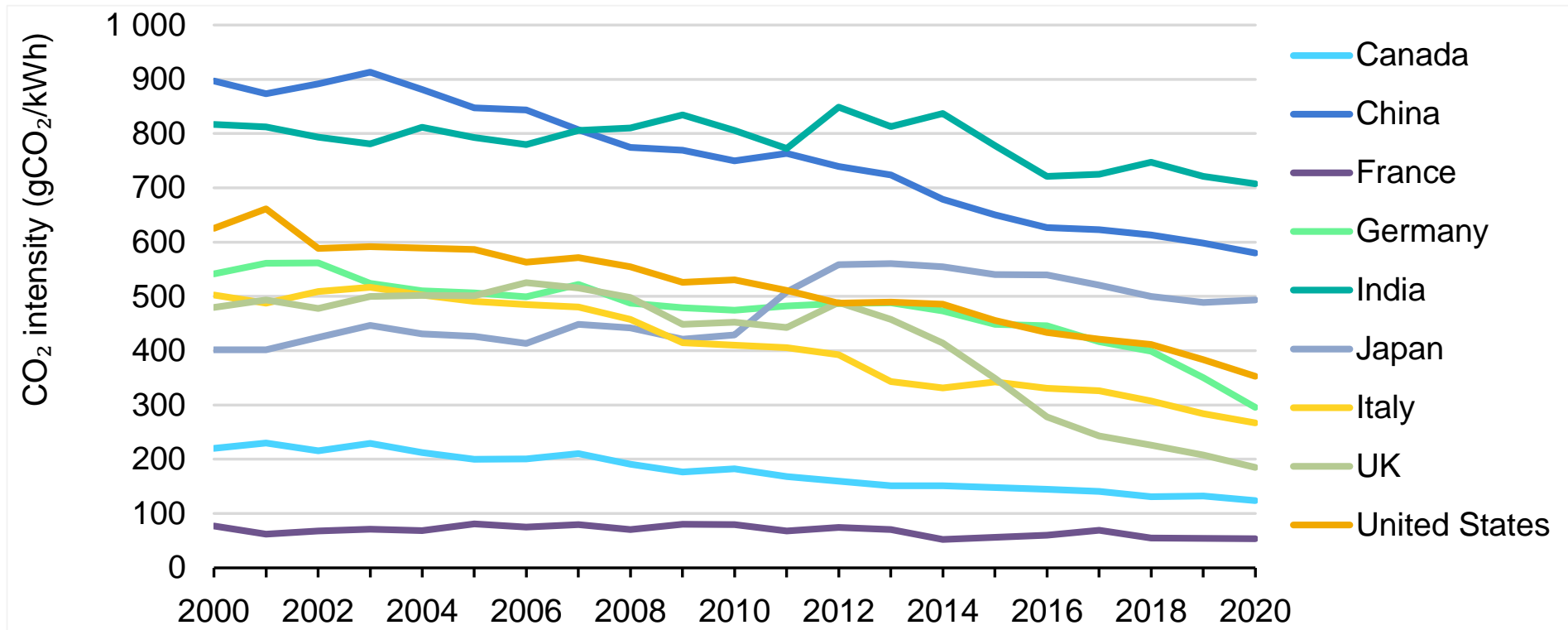
Drive a historic surge in clean energy investment



Annual clean energy investment more than triples by 2030 in the NZE scenario, driving an average 0.4% per year increase in global GDP to 2030 & speeding the recovery from the COVID-19 shock

Canada does have a head start in one area

Development of CO₂ emission intensity of electricity generation



Source: IEA (2020), [CO₂ emissions statistics](#).

Canada already has a low-carbon electricity system – a key first step to a low-carbon energy system

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