

# In summary: Strong fundamentals drive unprecedented build-out of renewable energy

## Fundamentals driving growth of renewables

1

Surging electricity demand led by electrification and AI revolution



2

Cost competitiveness and energy affordability



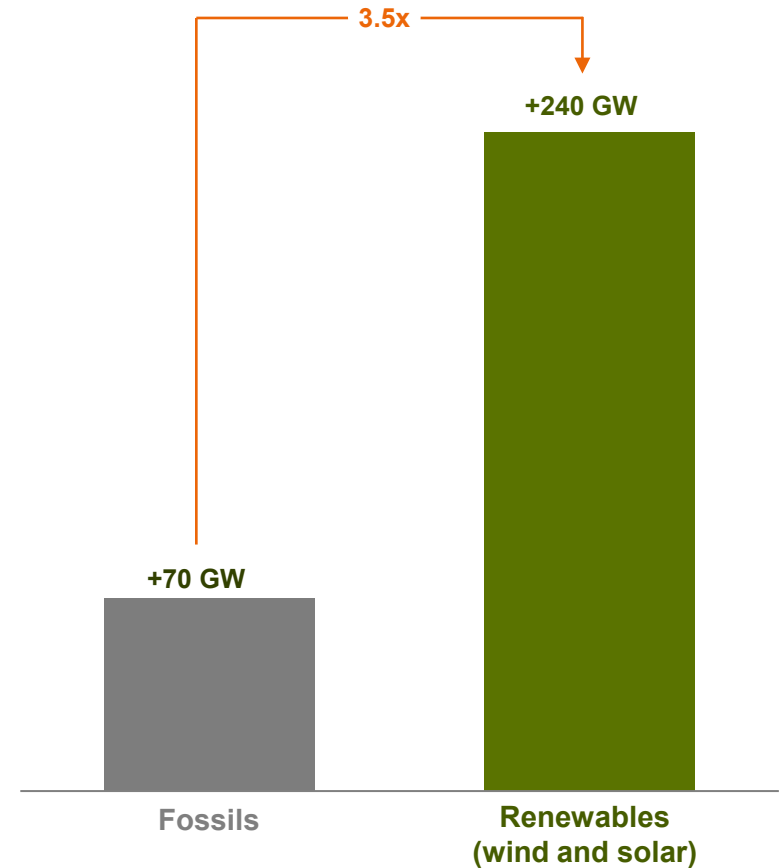
3

Continuous political support with focus on energy security, positive economic impact, and jobs growth



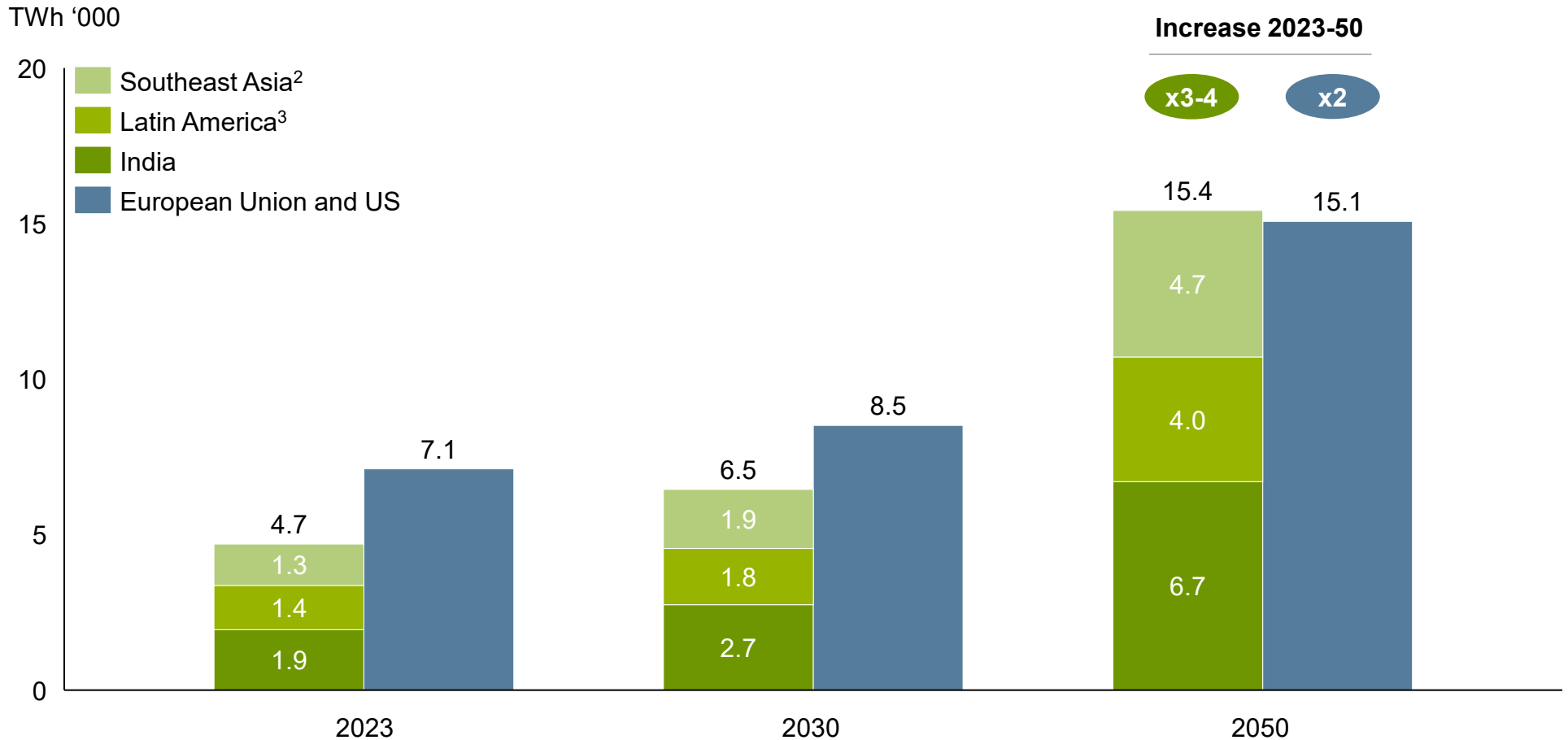
## Renewables have taken over global power sector in 2024

Power sector capacity additions in renewables vs. fossil fuels in 2024 (excl. China)<sup>1</sup>, GW



# 3-4x growth in electricity demand in growth market countries expected by 2050, driven by economic maturity

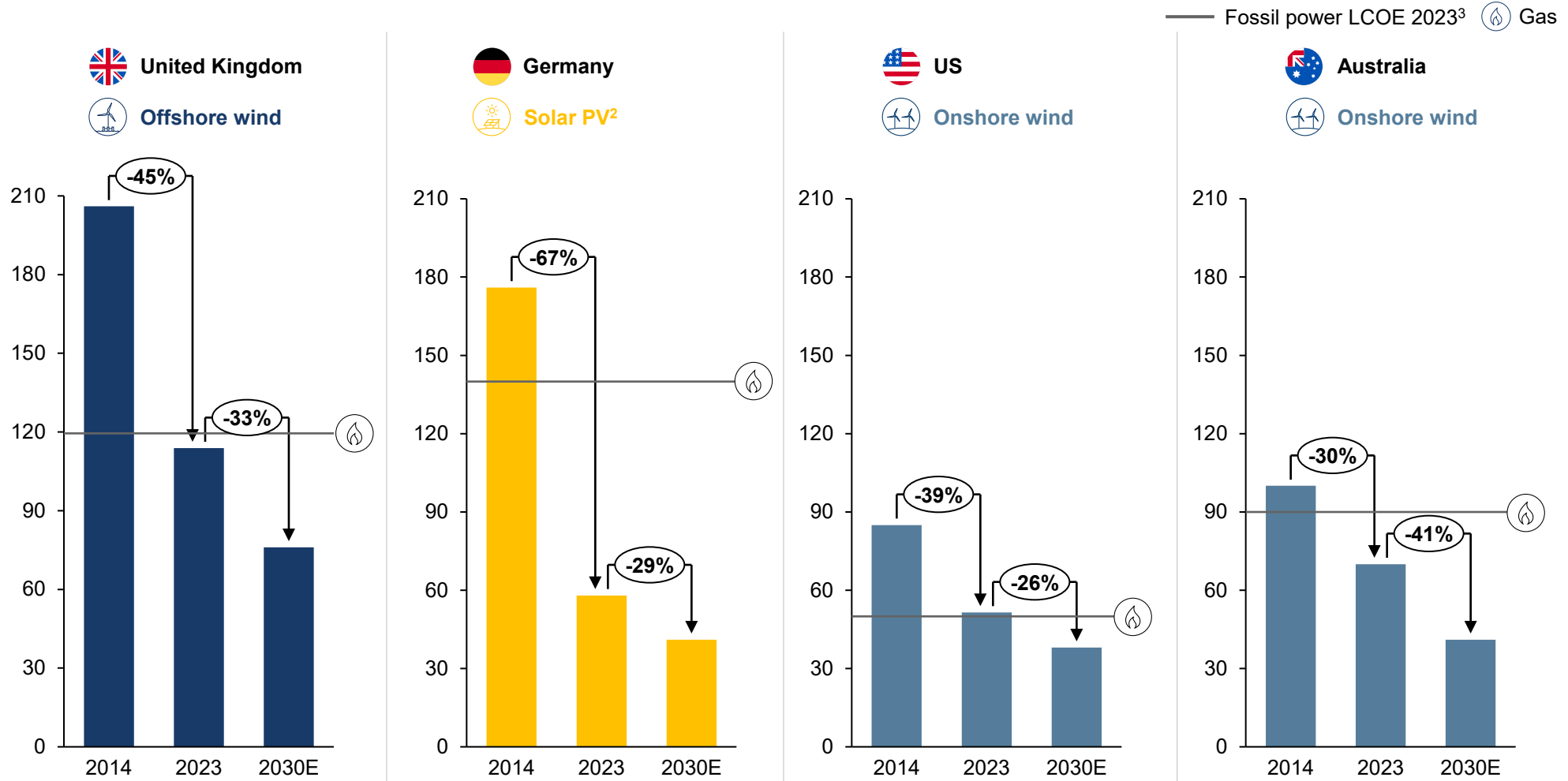
## Accelerating electricity demand towards 2050<sup>1</sup>



**Notes:** 1) Based on IEA Announced Pledges Scenario (All climate targets announced by governments are met) by IEA World Energy Outlook 2024. Expected electricity generation shown in illustration and used as a proxy for demand in these nations; 2) Includes all Southeast Asian countries: Brunei Darussalam, Cambodia, Indonesia, Lao, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam; 3) Includes all Central and South American countries: Argentina, Bolivia, Venezuela, Brazil, Chile, Colombia, Costa Rica, Cuba, Curaçao, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Nicaragua, Panama, Paraguay, Peru, Suriname, Trinidad and Tobago, Uruguay, other states in the Caribbean Sea; 4) BNEF India Electric Vehicle Outlook 2023; 5) JILL, Data Centres: The Malaysian Perspective (June 2024); 6) IEA World Energy Outlook 2023, Financial Times (October, 2024).

# Renewables have become the cost competitive technology across OECD markets with further cost reductions expected

Development in levelised cost of electricity for selected renewable technologies in selected OECD markets (USD/MWh<sup>1</sup>)



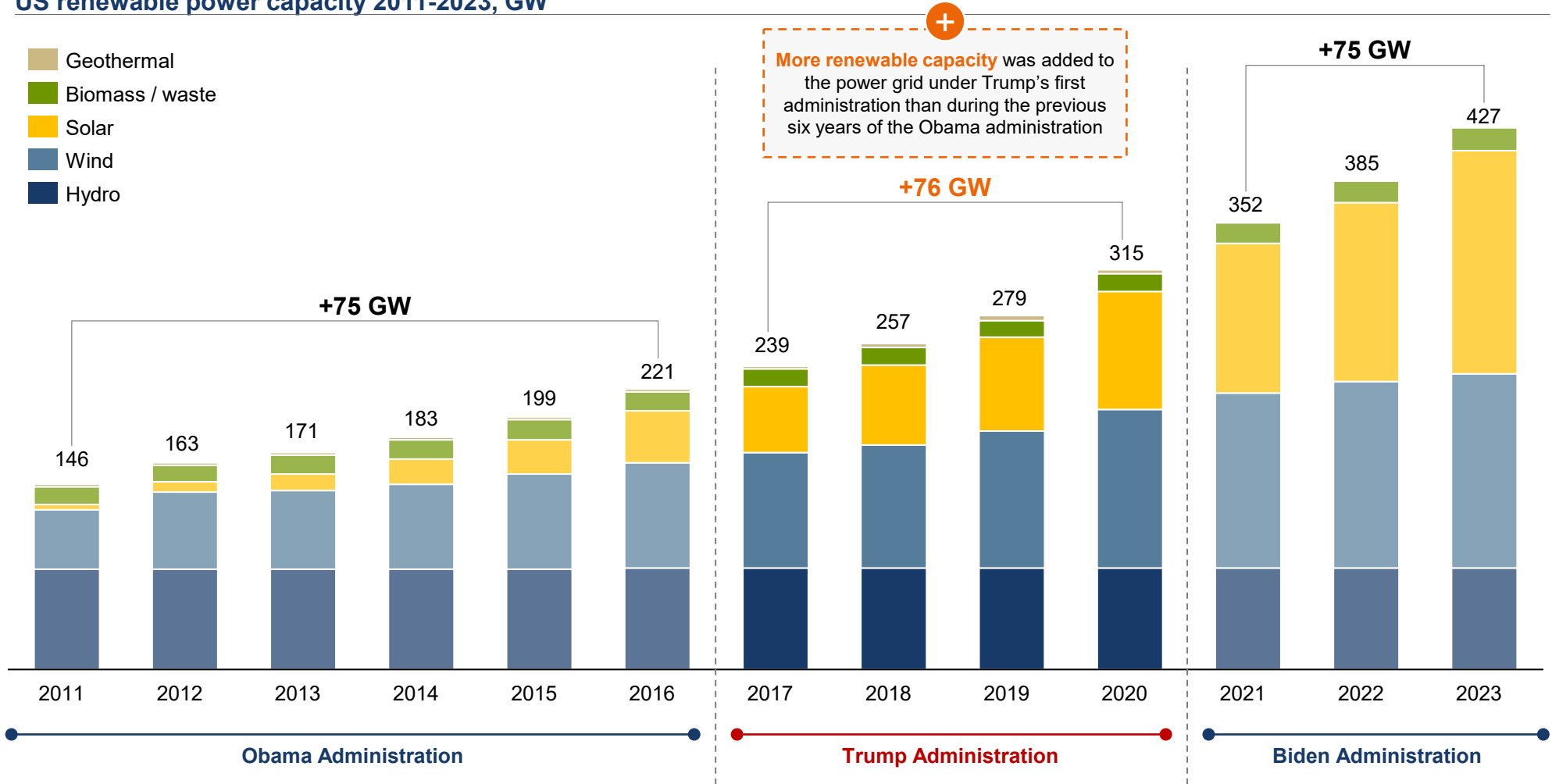
Notes: 1) The levelised cost of electricity (LCOE) is from BloombergNEF 2023 H2 LCOE data viewer defining LCOE as the subsidy-free cost of electricity from new power sources considering CAPEX, OPEX, financing costs, fuel and carbon prices, and capacity factor. Historical figures in nominal values and 2030 forecast in real 2022 values); 2) Solar Photovoltaic plants non-tracking; 3) LCOE shown for cheapest fossil fuel.



# Even in the US, renewable power build-out has continued regardless of shifts in government

## US renewable power capacity 2011-2023, GW

- Geothermal
- Biomass / waste
- Solar
- Wind
- Hydro

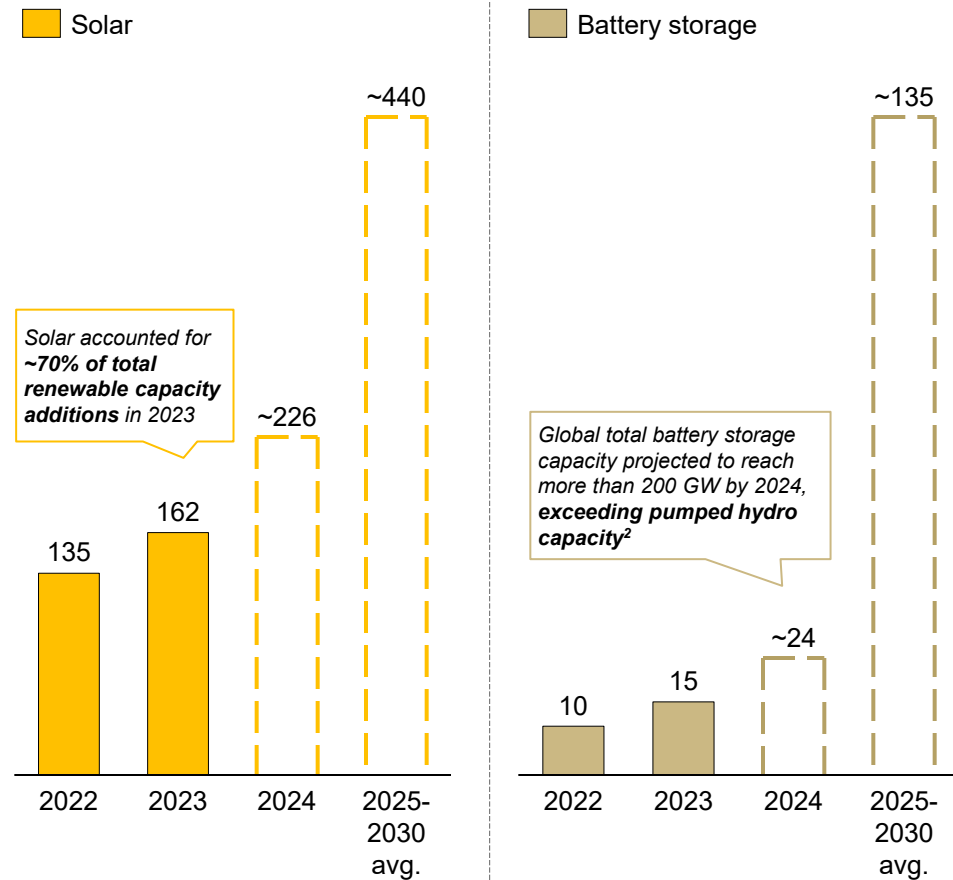


Source: BloombergNEF (February 2024).

# New solar and battery storage capacity additions reached new records in 2023, and offshore wind installations expected to reach record levels in 2024

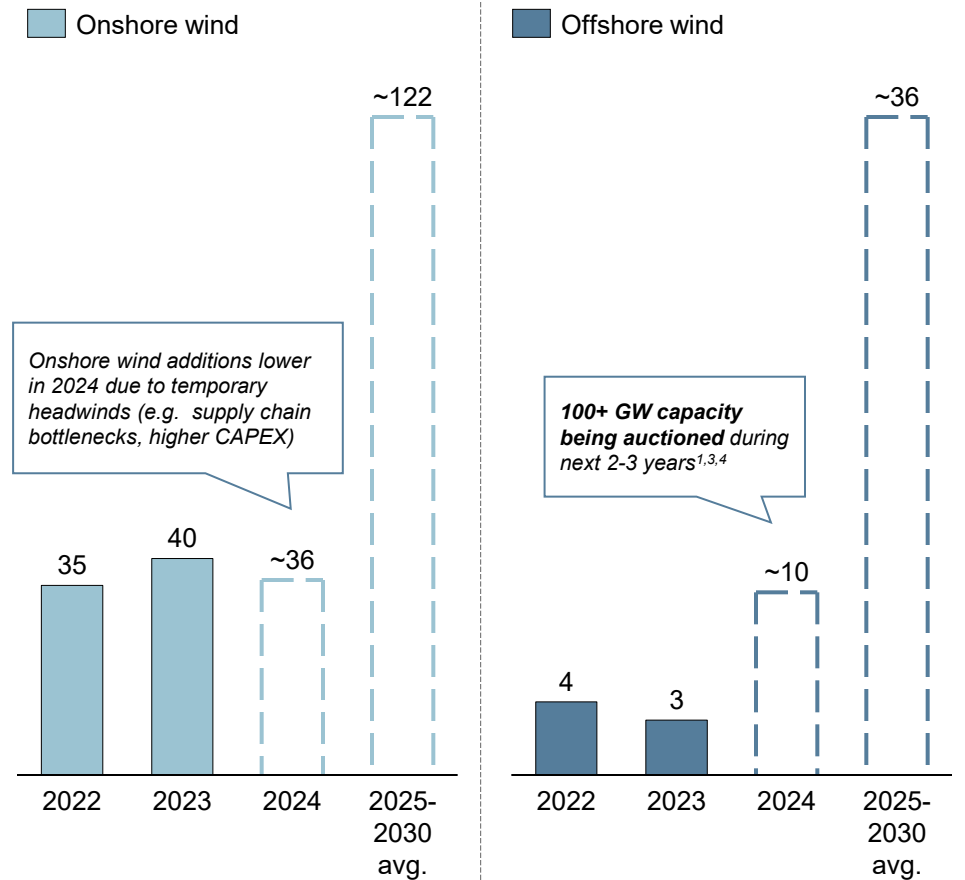
Annual solar and battery capacity additions have been increasing rapidly, with further increases expected towards 2030

Annual solar and battery capacity additions excl. China<sup>1</sup>  
GW



Despite recent headwinds, annual installations of onshore wind are expected to double towards 2030 and offshore wind quadruple

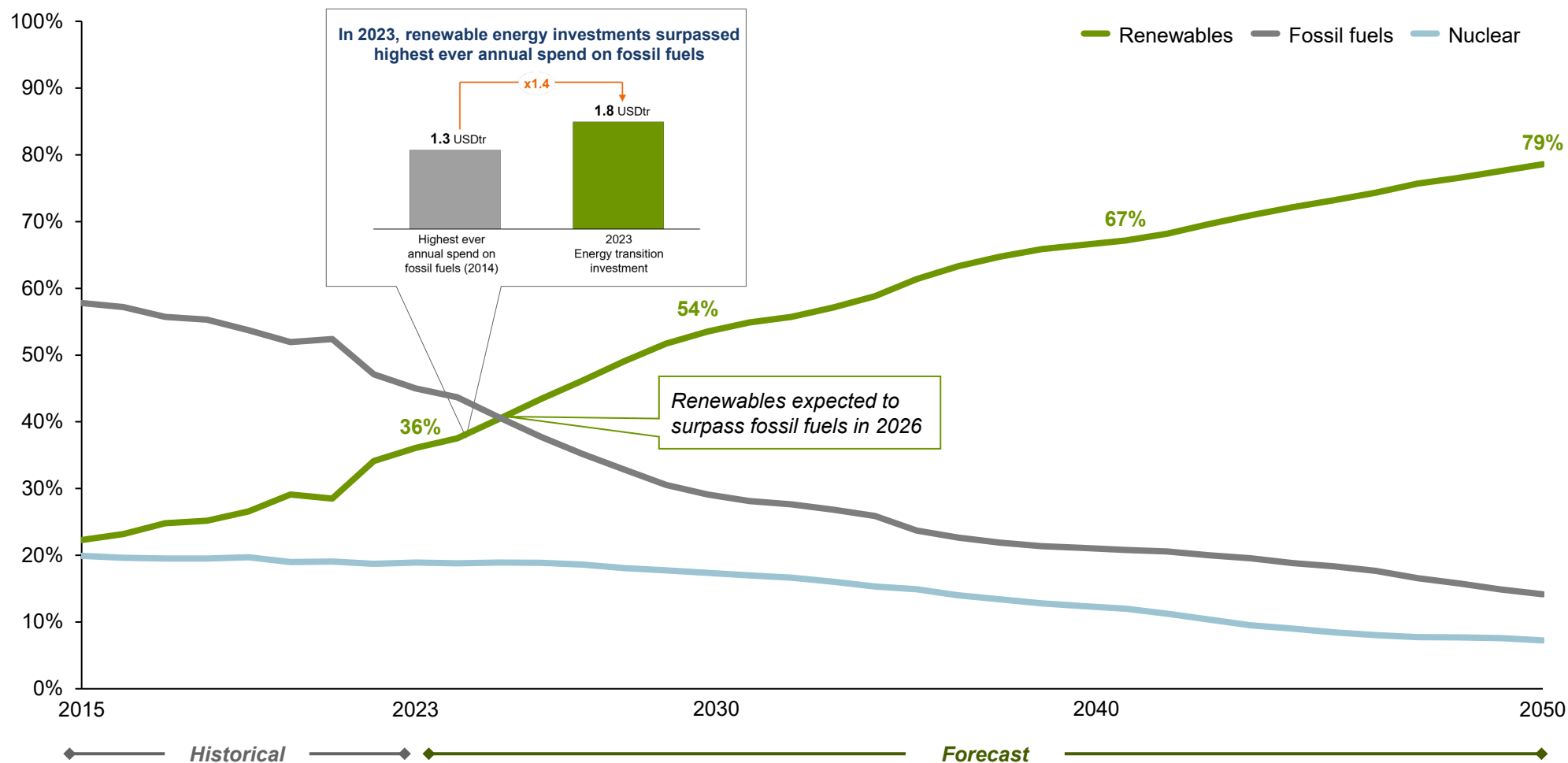
Annual onshore and offshore wind capacity additions excl. China<sup>1</sup>  
GW



Notes: 1) BNEF, data as of 26 June 2024 in the Net Zero Scenario; 2) RMI – The Cleantech Revolution report; 3) Auctions for countries: Denmark, Germany, The Netherlands, Finland, France, Norway, Spain, Belgium, Ireland, USA, Japan, South Korea and Taiwan; 4) PPA auctions are not included.

# Renewables are expected to be dominant in the electricity production going forward

Renewables and fossil share of electricity production in selected OECD markets<sup>1</sup>, Economic Transition Scenario, %



Notes: 1) BloombergNEF Capacity and Generation Data Viewer 2023. Includes OECD countries: US, UK, Australia, Canada, Germany, France, Italy, South Korea, Japan, Northern Europe.