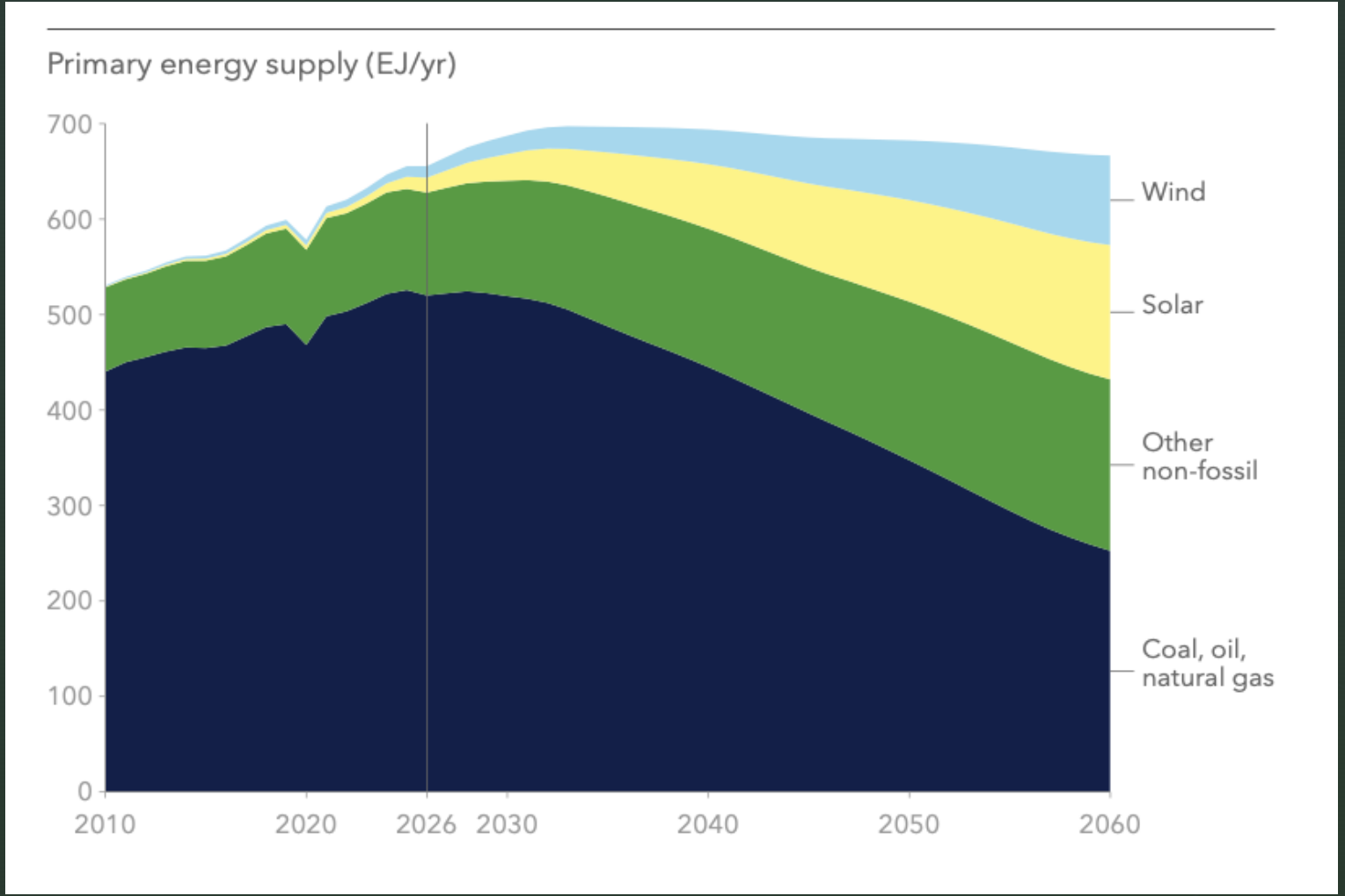
Patrick Love

with credits to DNV, Bloomberg-NEF, Exxon-Mobil, Total

The Future of Energy

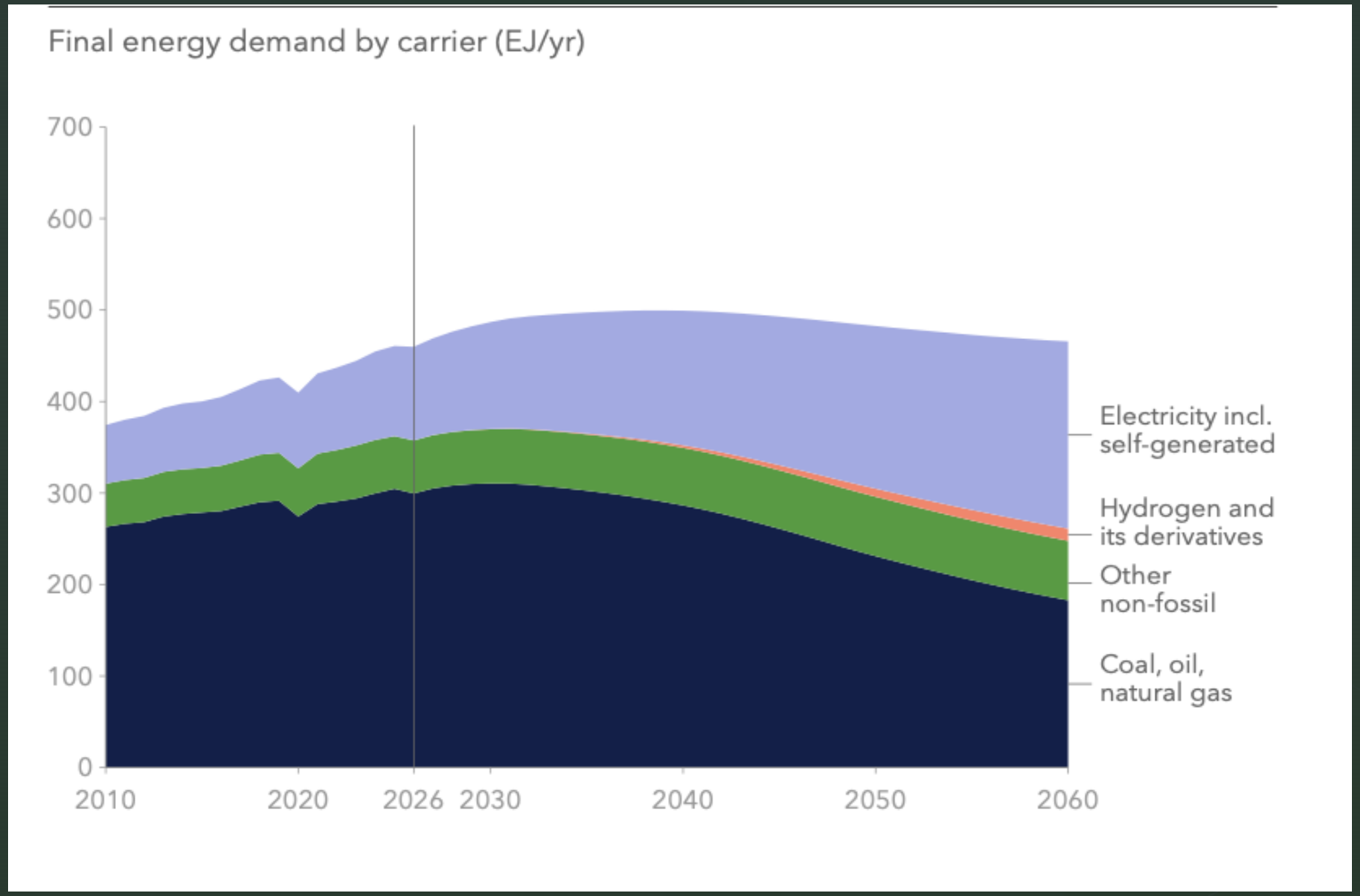
Primary Energy Demand to 2050 - DNV



1EJ = 10^18 Joules

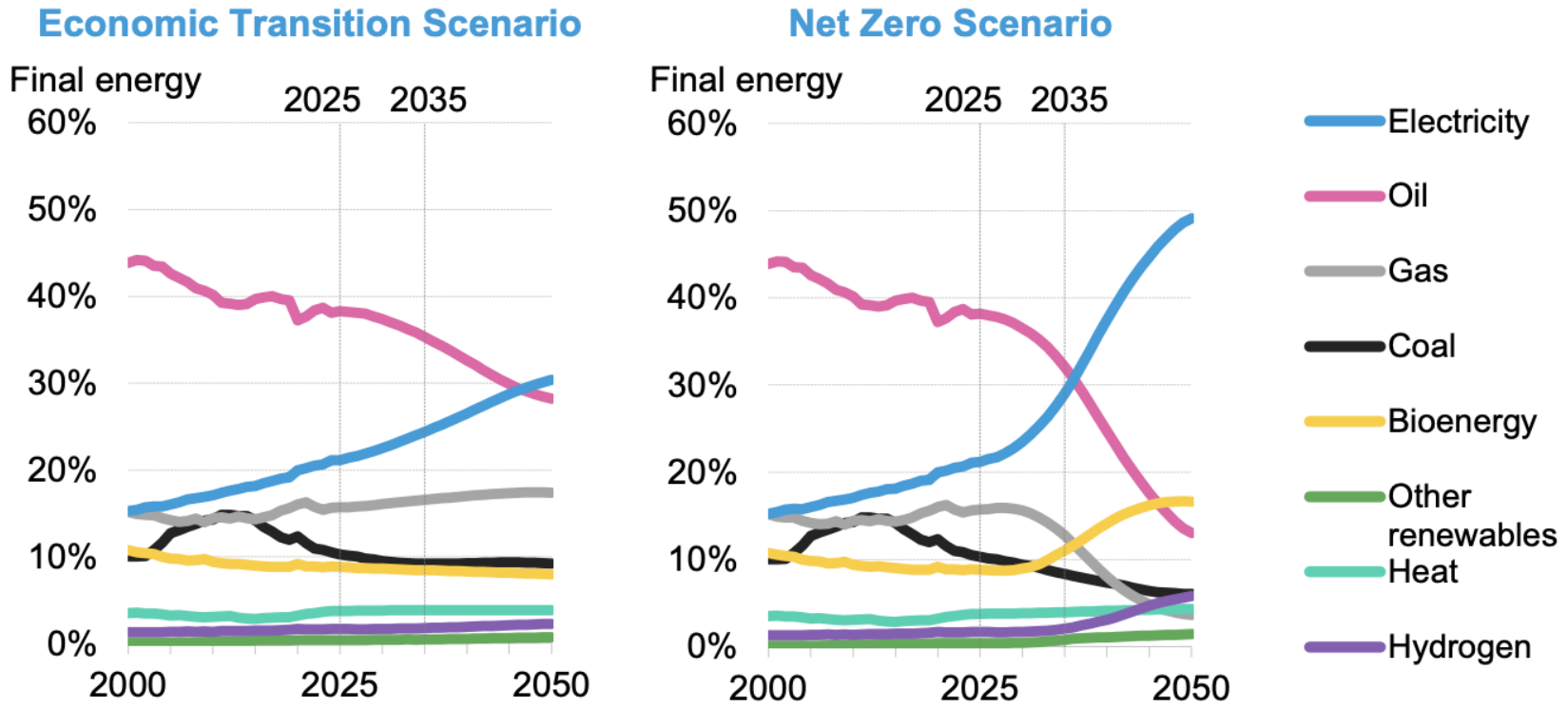
10^6 Joules = 1Kwh

Final Energy Demand to 2050 - DNV



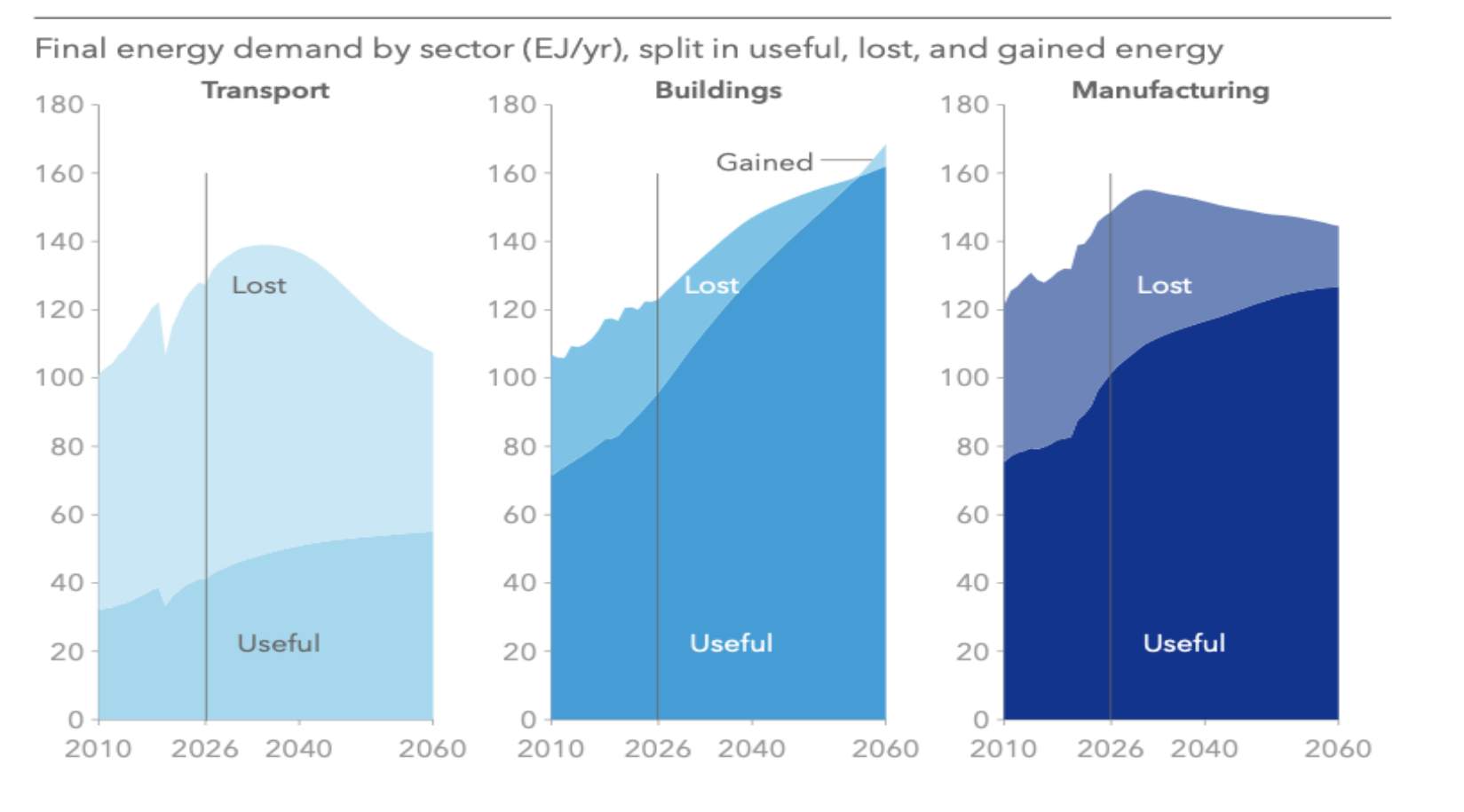
Global All-Energy Consumption By Fuel – Two Scenarios

Figure 4: Global final energy consumption by fuel and scenario



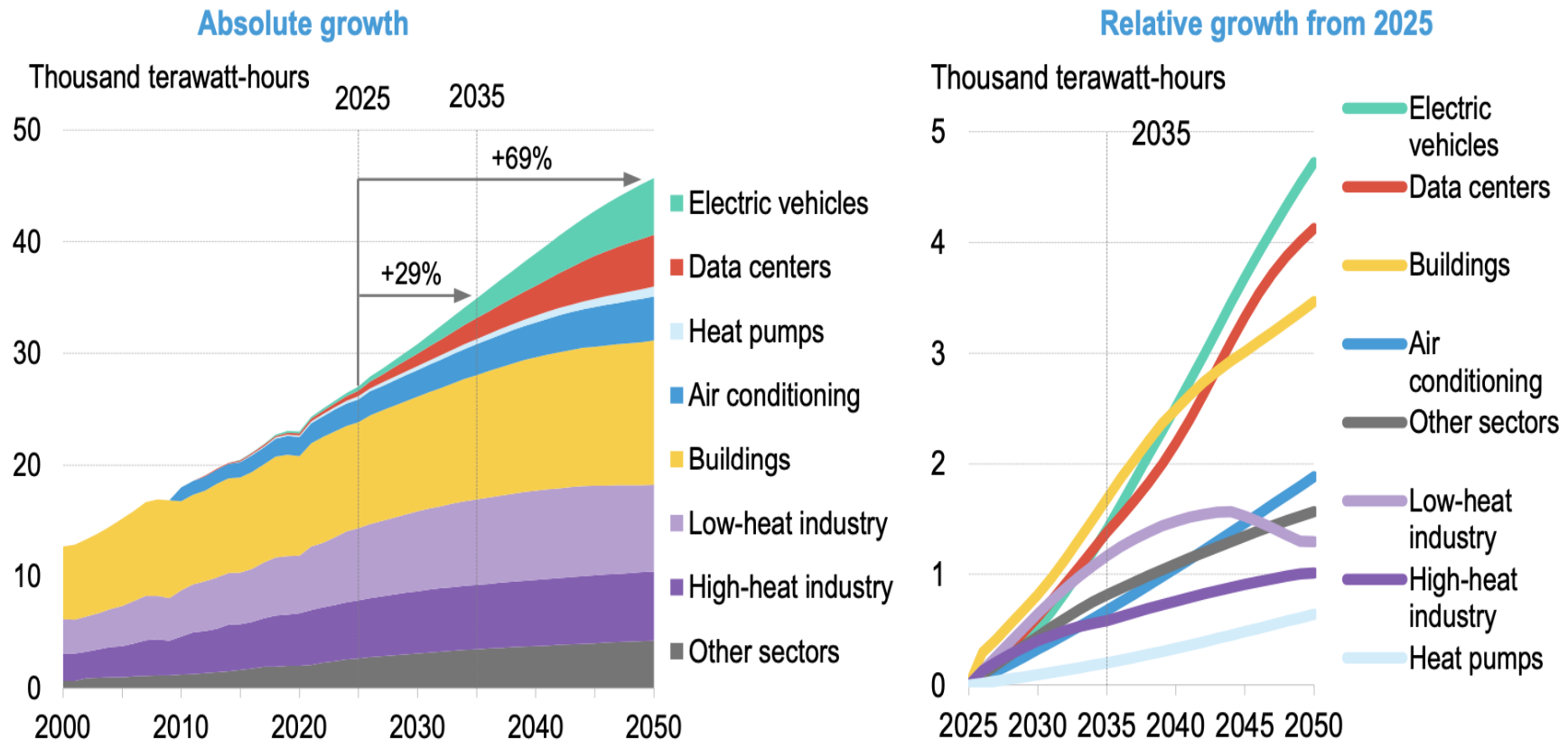
Source: BloombergNEF. Note: "Other renewables" includes all other non-combustible renewable energy, such as hydro and geothermal.

Final Energy in Three Sectors Showing Gains in Efficiency



Electrical Demand Growth – 70% Growth from 2025

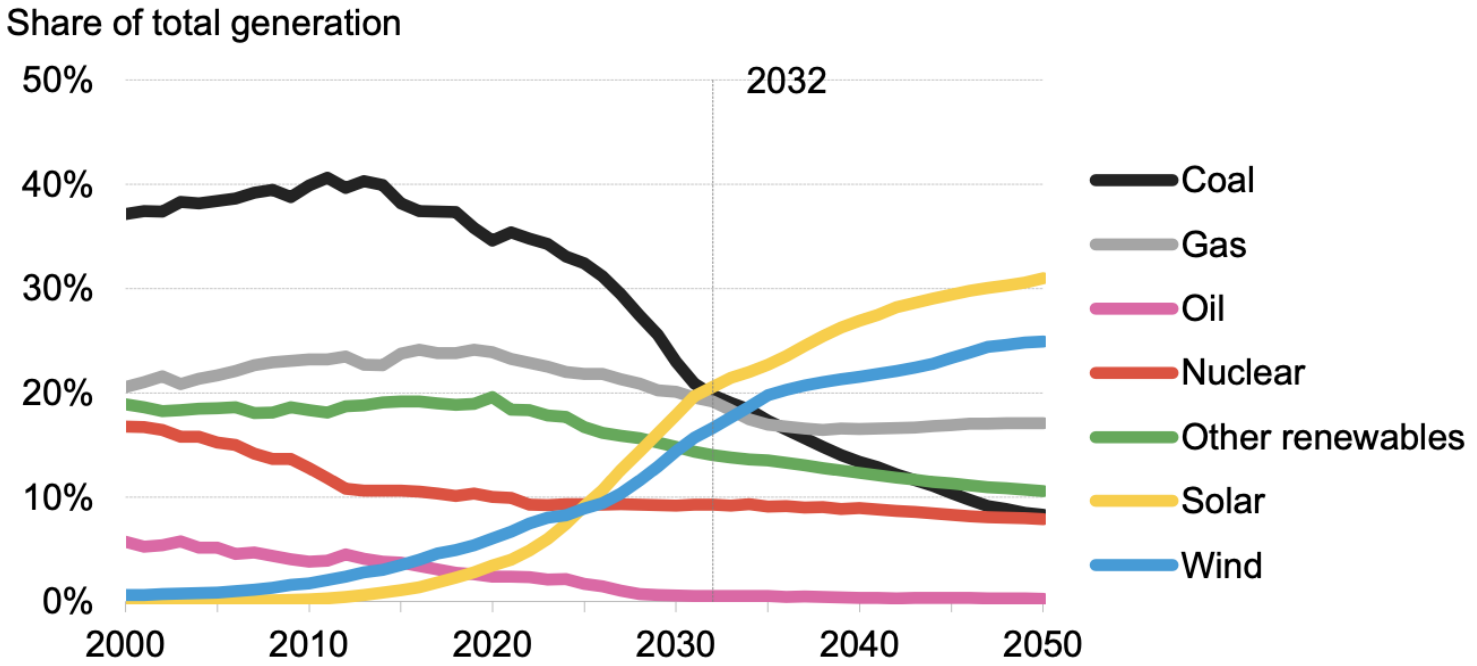
Figure 5: Drivers of electricity demand growth, Economic Transition Scenario



Source: BloombergNEF

Global Fuel Share to Generate Electricity

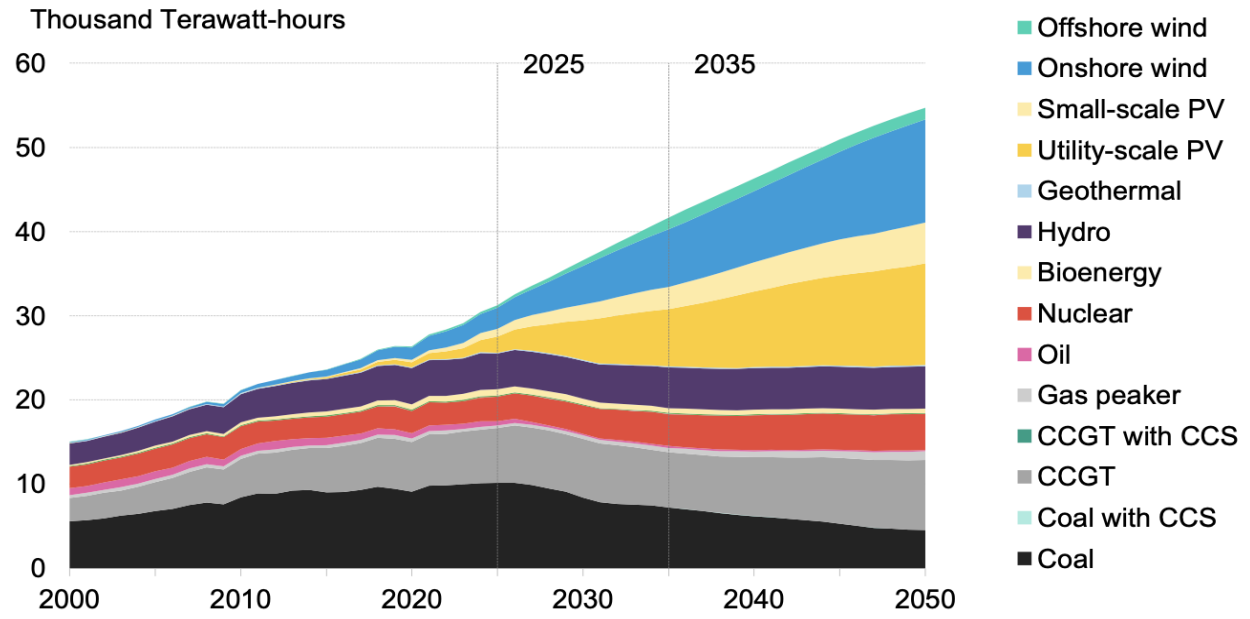
Figure 6: Share of global electricity generation by technology/fuel



Source: BloombergNEF. Note: "Other renewables" includes all other non-combustible renewable energy, including hydro, bioenergy, geothermal and solar thermal.

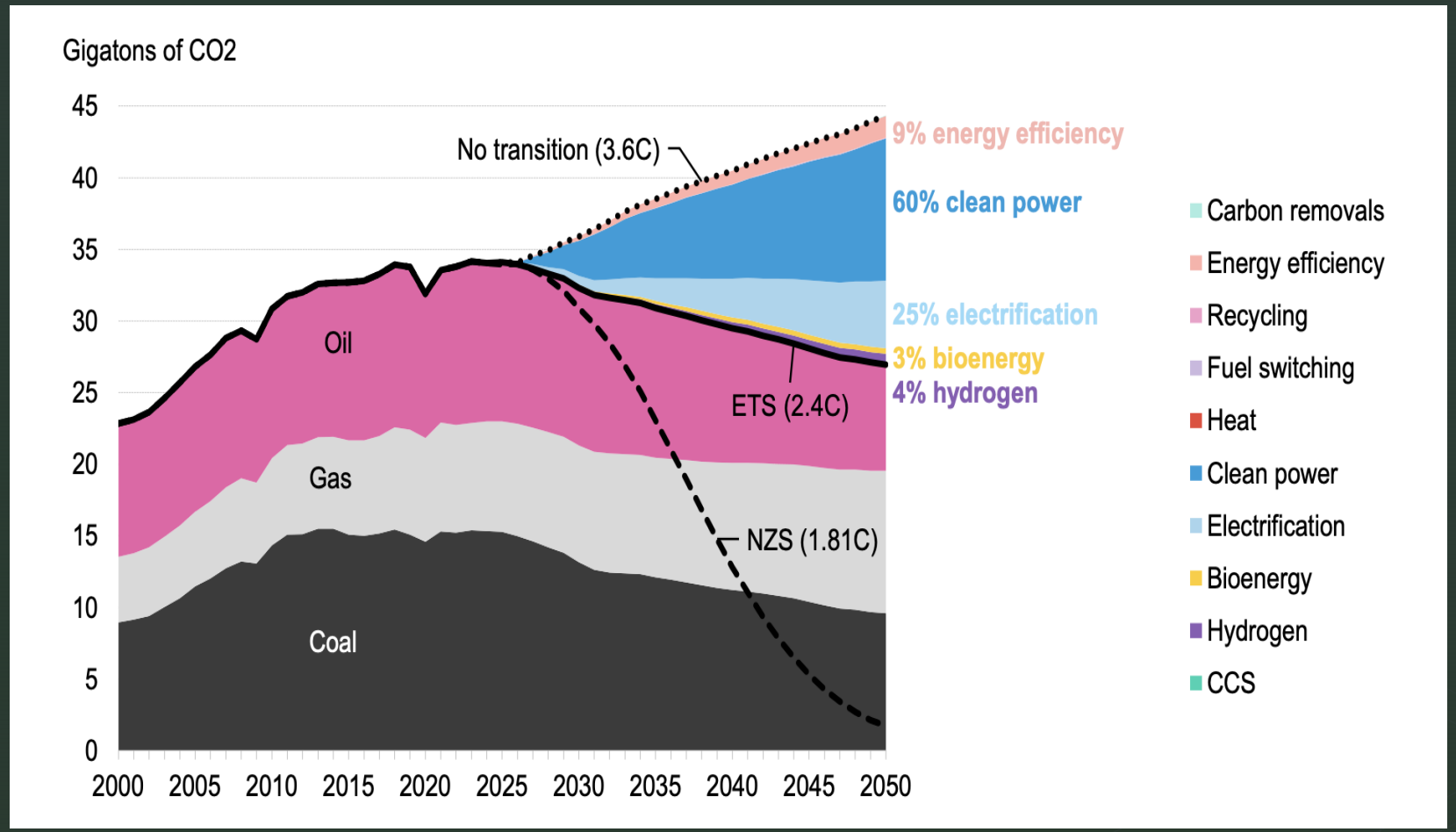
Electrical Generation by Technology to 2050

Figure 3: Electricity generation by technology, Economic Transition Scenario



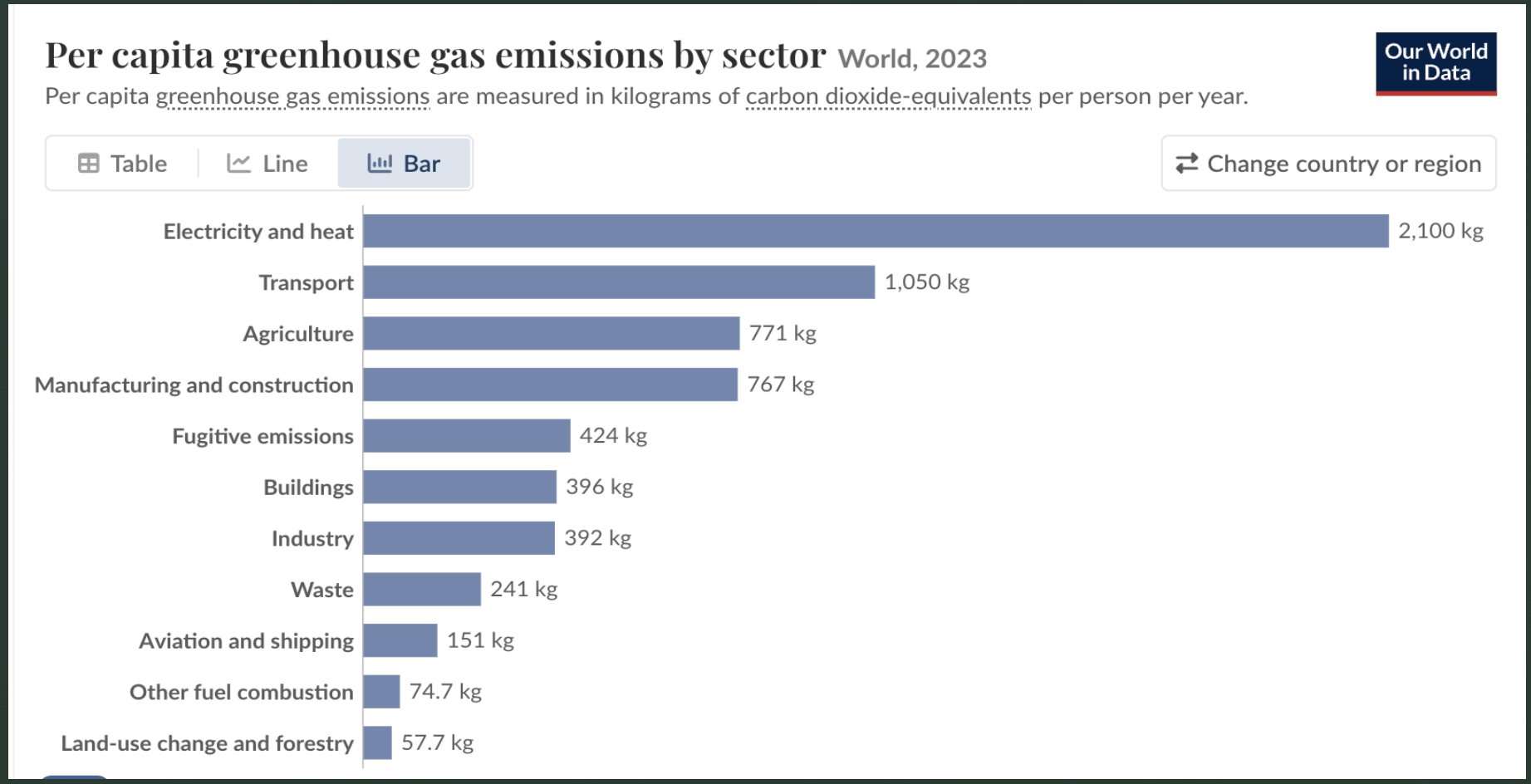
Source: BloombergNEF. Note: CCS is carbon capture and storage, CCGT is combined cycle gas turbine. See New Energy Outlook 2026: Data Viewer (web | terminal) for full results and about.bnef.com/new-energy-outlook for an abridged public benchmark dataset.

Projected Effect on Emissions and Global Temperature



Bloomsburg NEF

Global Per Capita Emissions - 2023



Electricity = 6425 kg/person – 33% of global emissions in 2023