

REthinking Energy

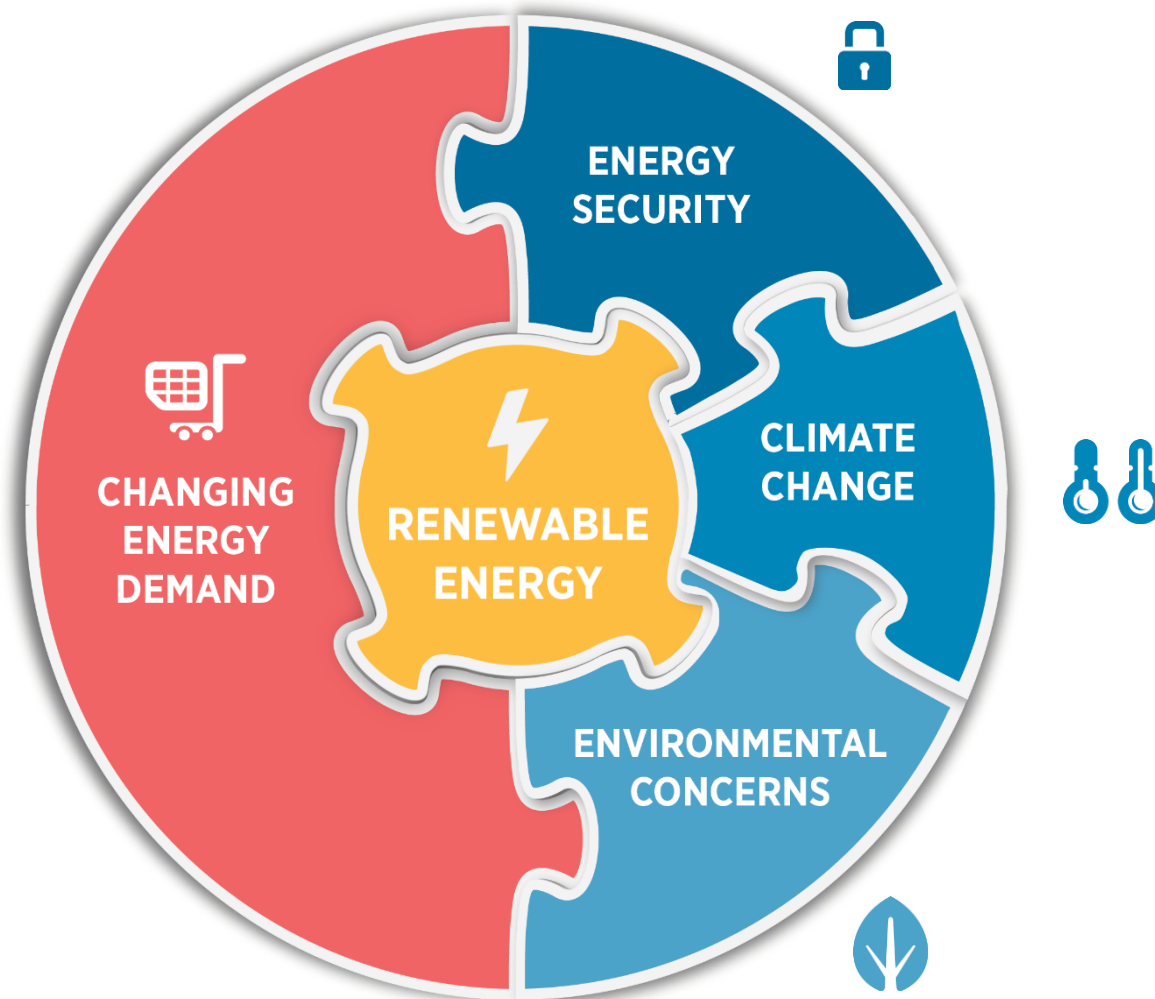


The Role of Renewable Energy in Addressing Climate Change

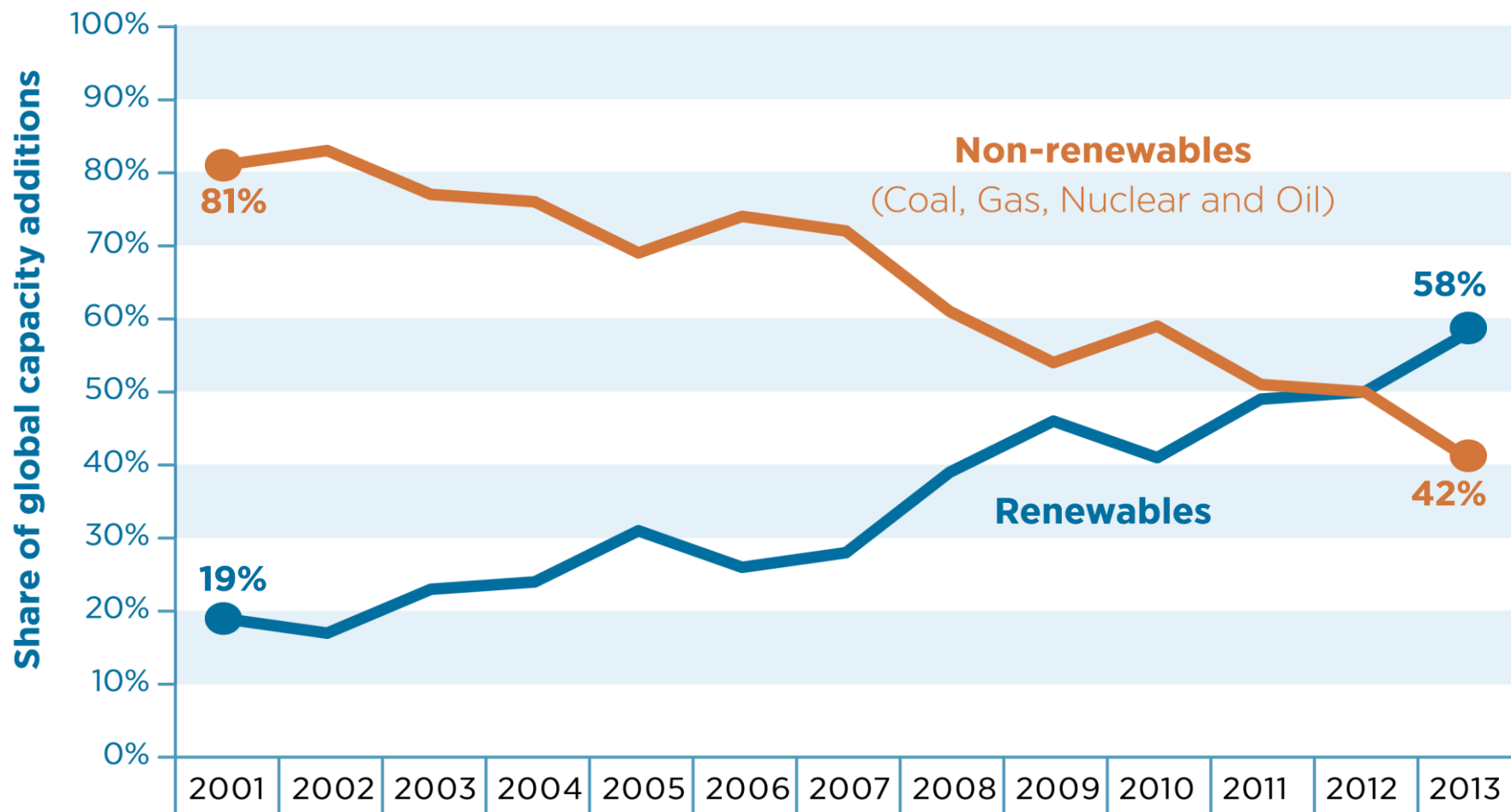
10 December 2014

Lima, Peru

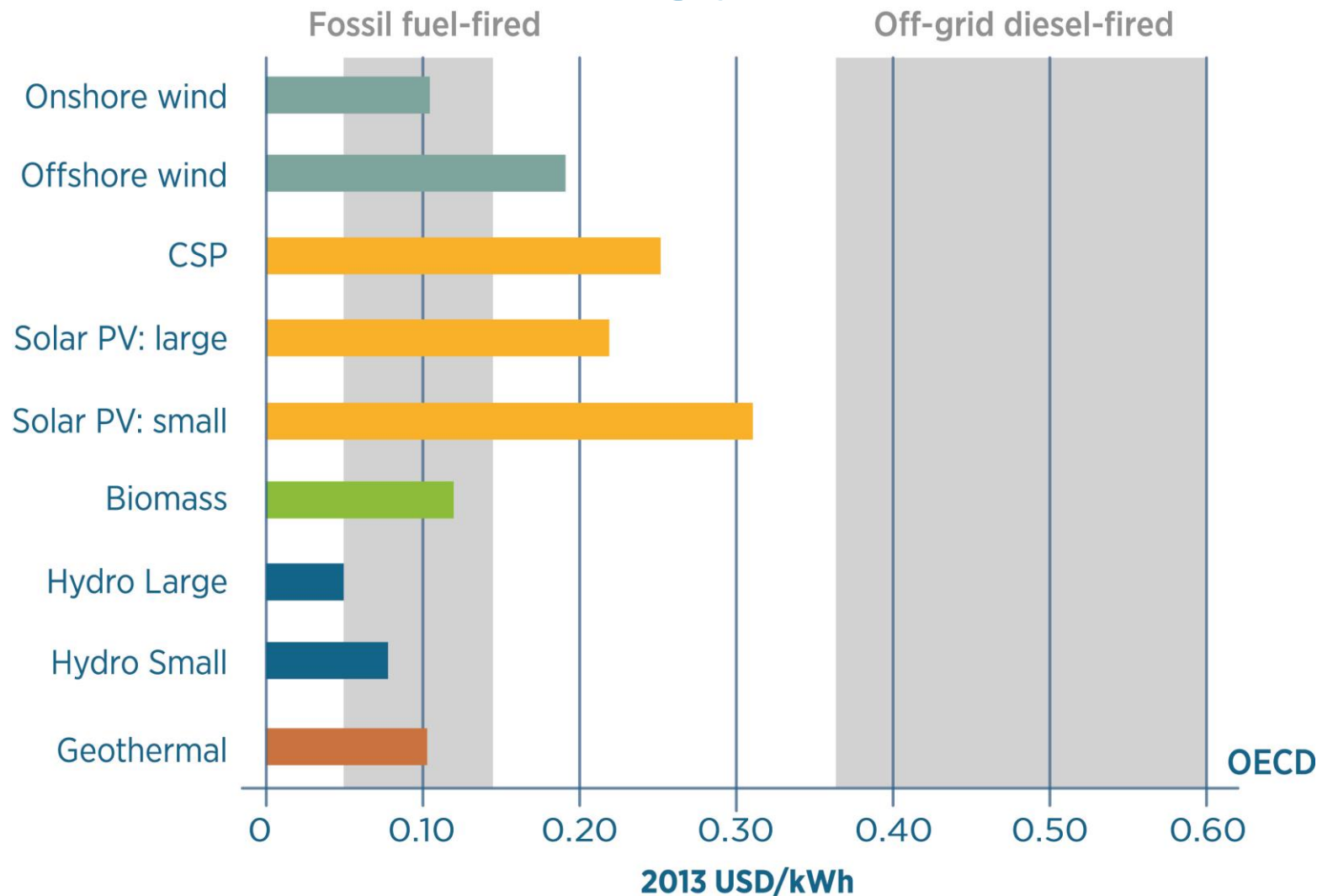
The World of Energy is Transforming



Moving to the Majority in New Capacity Additions

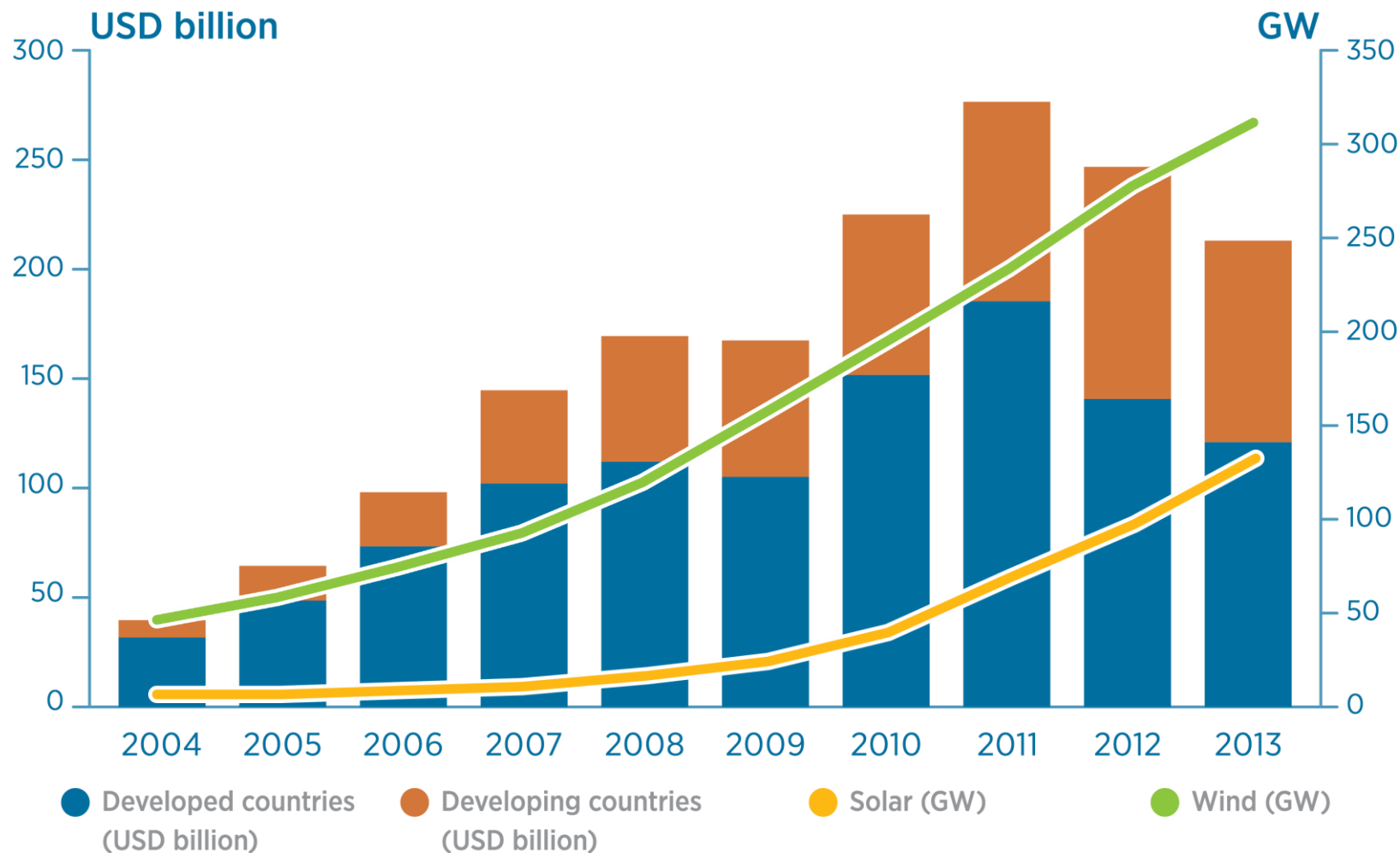


Renewables are Increasingly Cost-Competitive



Note: The weighted average in OECD is at 10% WACC

Global Investment in Renewable Energy



Financing Renewables is Getting Cheaper & Easier

Project developers, venture capital, government grants

Commercial banks, multi-lateral institutions

Institutional investors

New players



New Investors, New Owners & New Players

\$16 bn



By mid-2014, green bonds had already been issued for over \$16bn to finance renewable energy projects

13 hours



Dutch households raised \$1.7 million in just 13 hours to buy shares in a cooperatively-owned wind turbine

\$1.4 bn



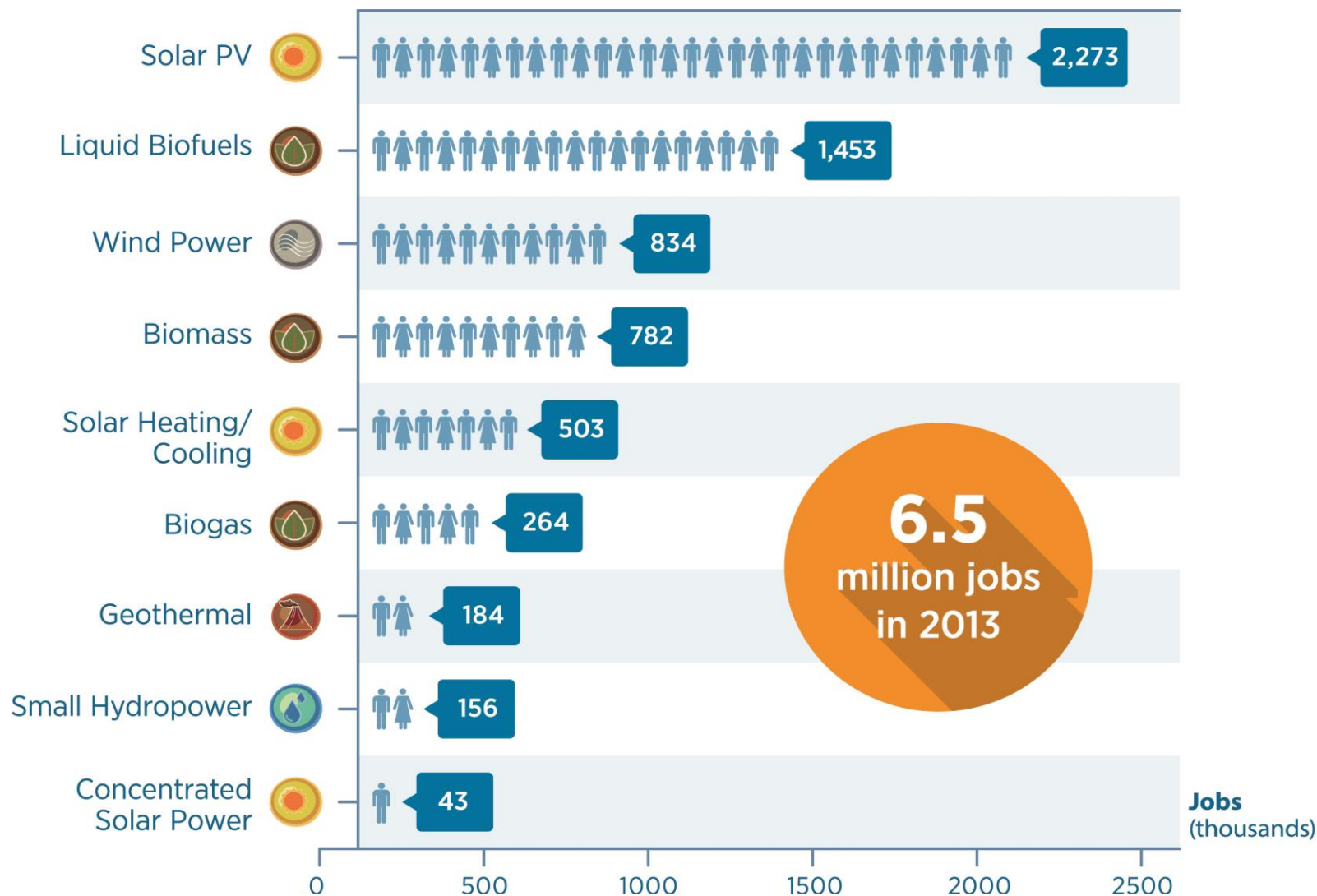
Google has invested over \$1.4 billion in wind and solar because it also generates “attractive financial returns”

46%

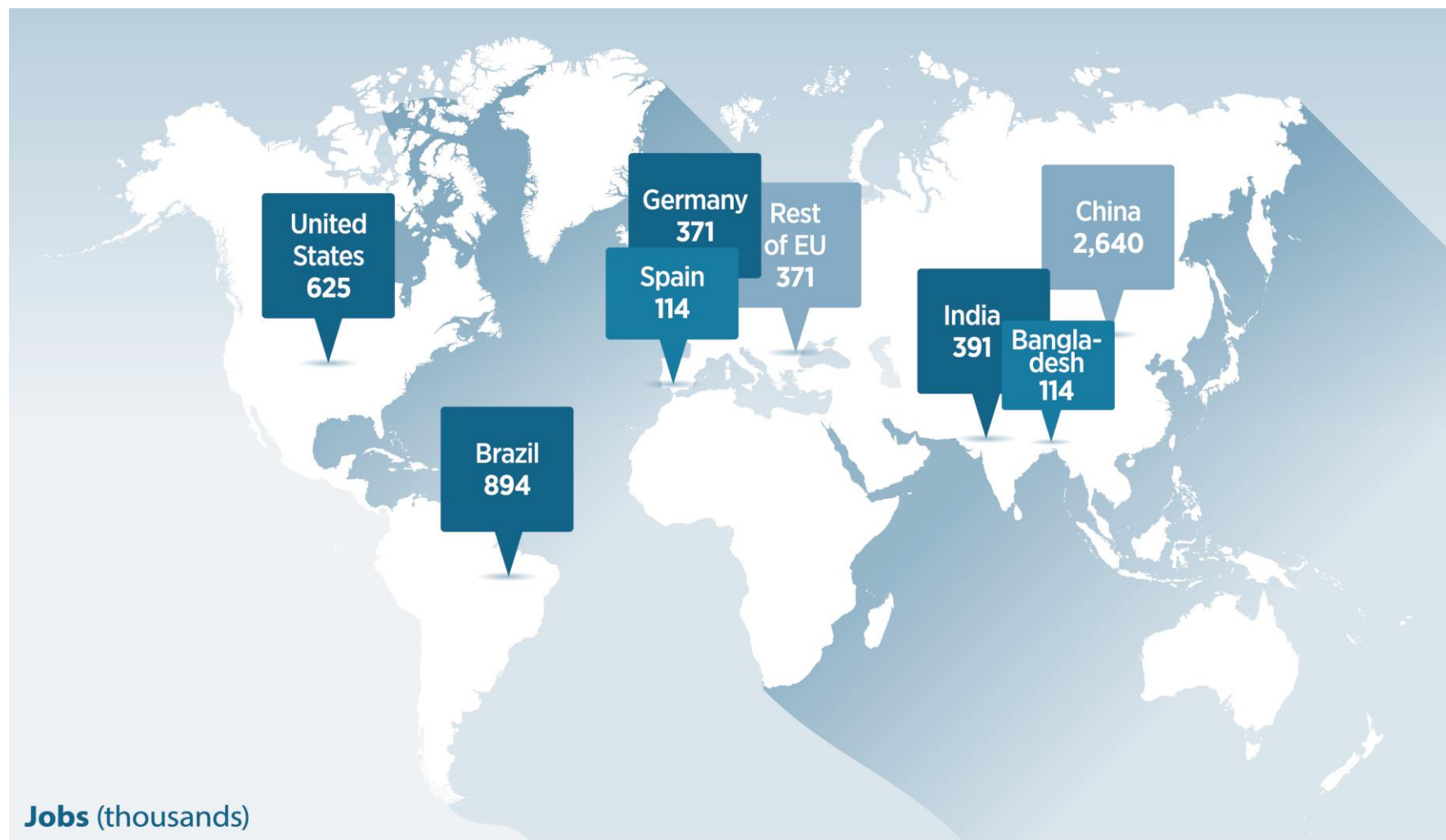


Nearly half of all renewable energy capacity in Germany is owned by individuals and farmers

Renewable Energy Jobs



Renewable Energy Sector: No Longer a Niche



Jobs (thousands)

Socio-Economic Benefits of Renewables

6.5 million



In 2013, 6.5 million people worked in renewables worldwide

\$52 bn



China's PV industry generated \$52 billion in income in 2013

\$2.8 bn



Spain avoided \$2.8 billion in fossil fuel imports in 2010

13 million



In Bangladesh, 13 million people gained energy access through solar PV

Environmental Advantage of Renewables

7 million



7 million premature deaths linked to air pollution annually

2020 ban



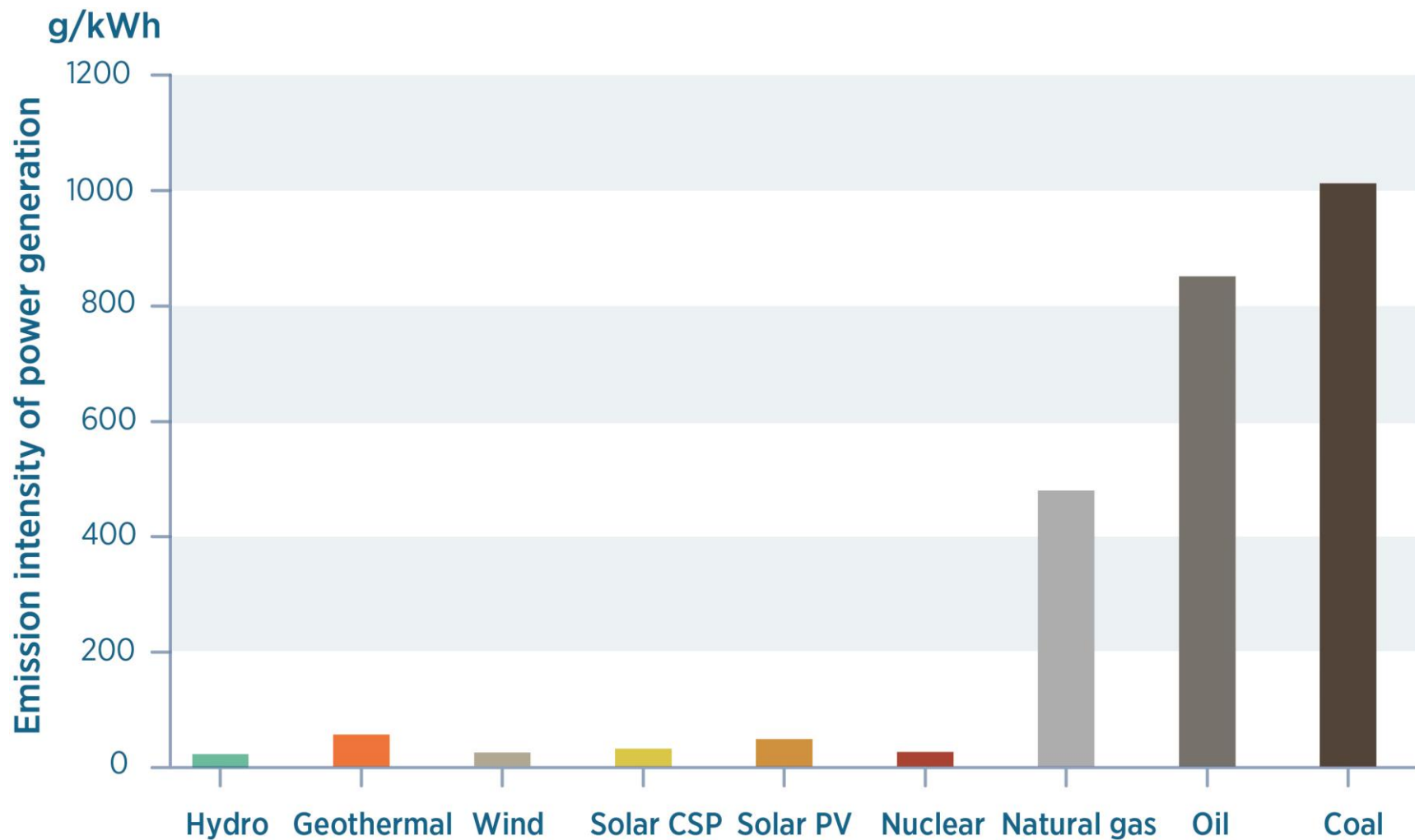
Beijing announced a ban on coal use beyond 2020 to cut air pollution

250x

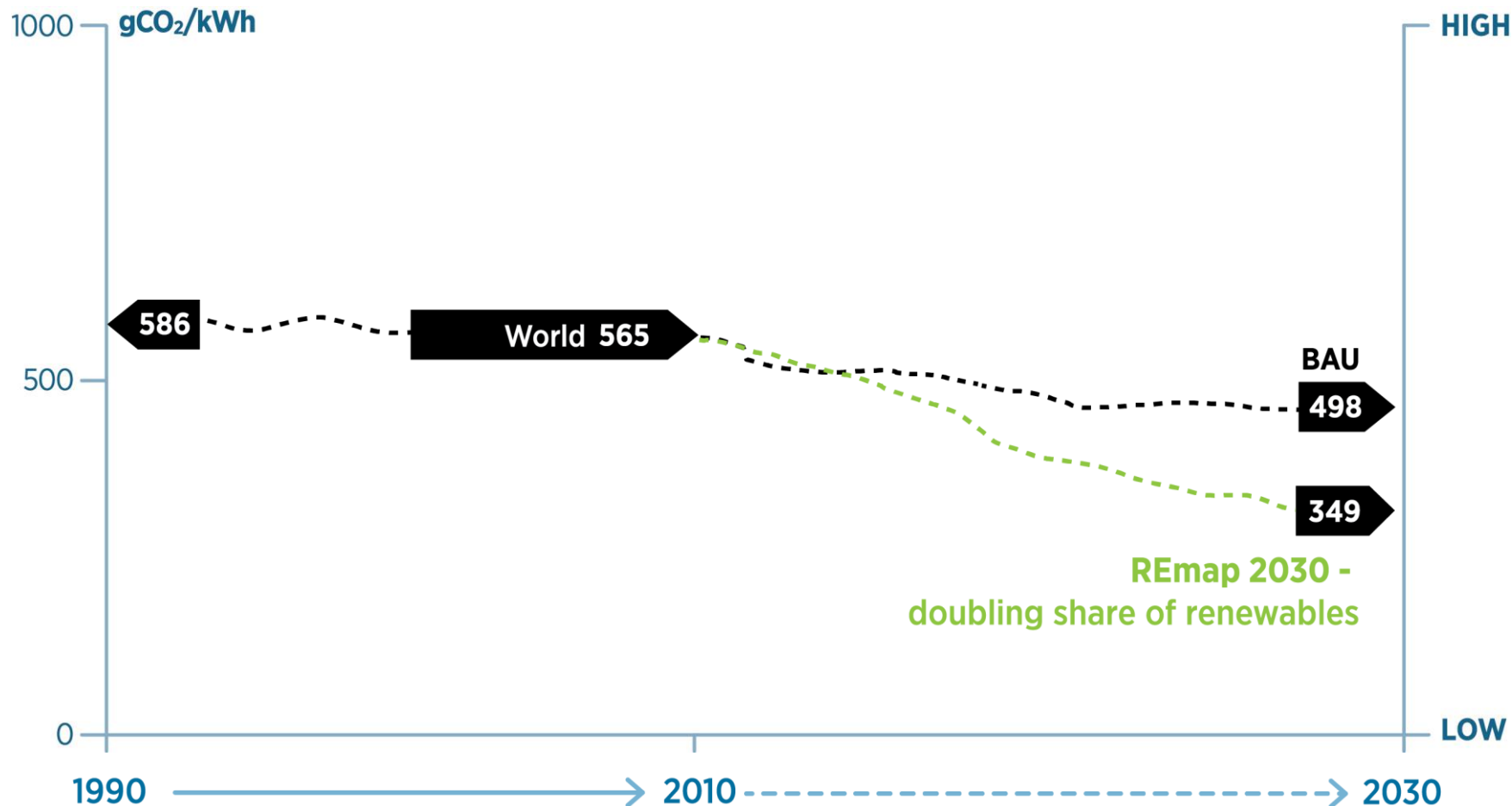


Renewables are up to 250 times less carbon intensive than coal

Renewable Energy: The Low-Carbon Advantage



Keeping Global Warming to 2°C



Recommendations for a Renewable Future



**SYSTEM LEVEL
APPROACH**



**IMPROVING MARKET
CONDITIONS**



**PLANNING
FOR INTEGRATION**