EMBARGOED UNTIL 00:01 GMT 28 OCTOBER 2025

10 YEARS POST-PARIS

THE DECADE THAT DEFIED PREDICTIONS

2015 • • • • • • • • • 2025

In 2015, nearly 200 countries endorsed the Paris Agreement, committing to limit heating to well below 2°C.

CLEAN ENERGY | EMISSIONS | POLICY | JOBS | SCIENCE | RISK | NATURE

A decade on, the world looks very different to what many predicted. We look at the progress.

1. DEPLOYMENT OF SOLAR & WIND

CLEAN ENERGY

THEN 2015

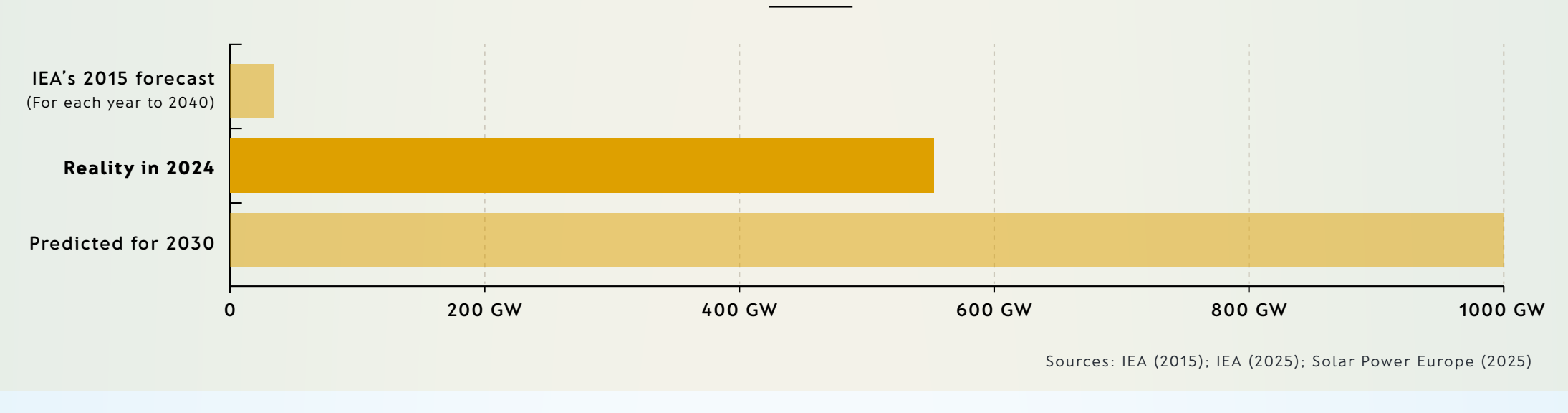
> "We forecast **34 GW of new solar** each year to 2040 and **40-45 GW of wind.**"
>
> — International Energy Agency (IEA), World Energy Outlook, 2015

NOW 2025

Reality has overshot the IEA's forecast by **1,500%** already, with **553 GW of solar installed in 2024.**

- Solar and wind account for **more than 90%** of new global electricity capacity additions.
- Solar and wind are matching — and at times exceeding — demand growth. **Renewables now surpass coal's share of the global electricity mix**, and coal generation is in decline globally.
- In 2024, **renewables deployment helped avoid around $467 billion in fossil fuel costs.**

ANNUAL SOLAR CAPACITY ADDITIONS: EXCEEDING EXPECTATIONS SINCE 2015



Sources: IEA (2015); IEA (2025); Solar Power Europe (2025)

41%

CLEAN POWER'S RISING

The deployment of solar and wind has pushed clean power past 40% of global electricity generation.

THE SUN HAS WON

Installed capacity is doubling every **3 years**. Solar took 8 years to go from 100 to 1,000 TWh (2013-2021), then 3 to pass 2,000 TWh (2021-2024).

FROM GUST TO GALE

Wind added **120 GW globally in 2024.** In the UK, wind's share of power generation has risen from 8% in 2013 to 29% in 2024.

2. THE COST COLLAPSE OF SOLAR GENERATION

CLEAN ENERGY

THEN 2015

> "Even by 2035, grid-scale PV still requires a material carbon price to compete with efficient gas combined cycle generation."
>
> — BP Energy Outlook 2035, 2015

NOW 2025

In 2020, the IEA said that **solar had become the "cheapest electricity in history."**

- Solar PV prices have fallen **99.9% since 1975, and by 66% in the last decade** (2014-2024).
- In 2024, **average battery prices declined by 40%**, reinforcing IEA and analyst expectations that the cost of solar plus battery energy storage system (BESS) generation will continue to fall.

COST COMPETITIVE, WITH MORE ROOM TO FALL

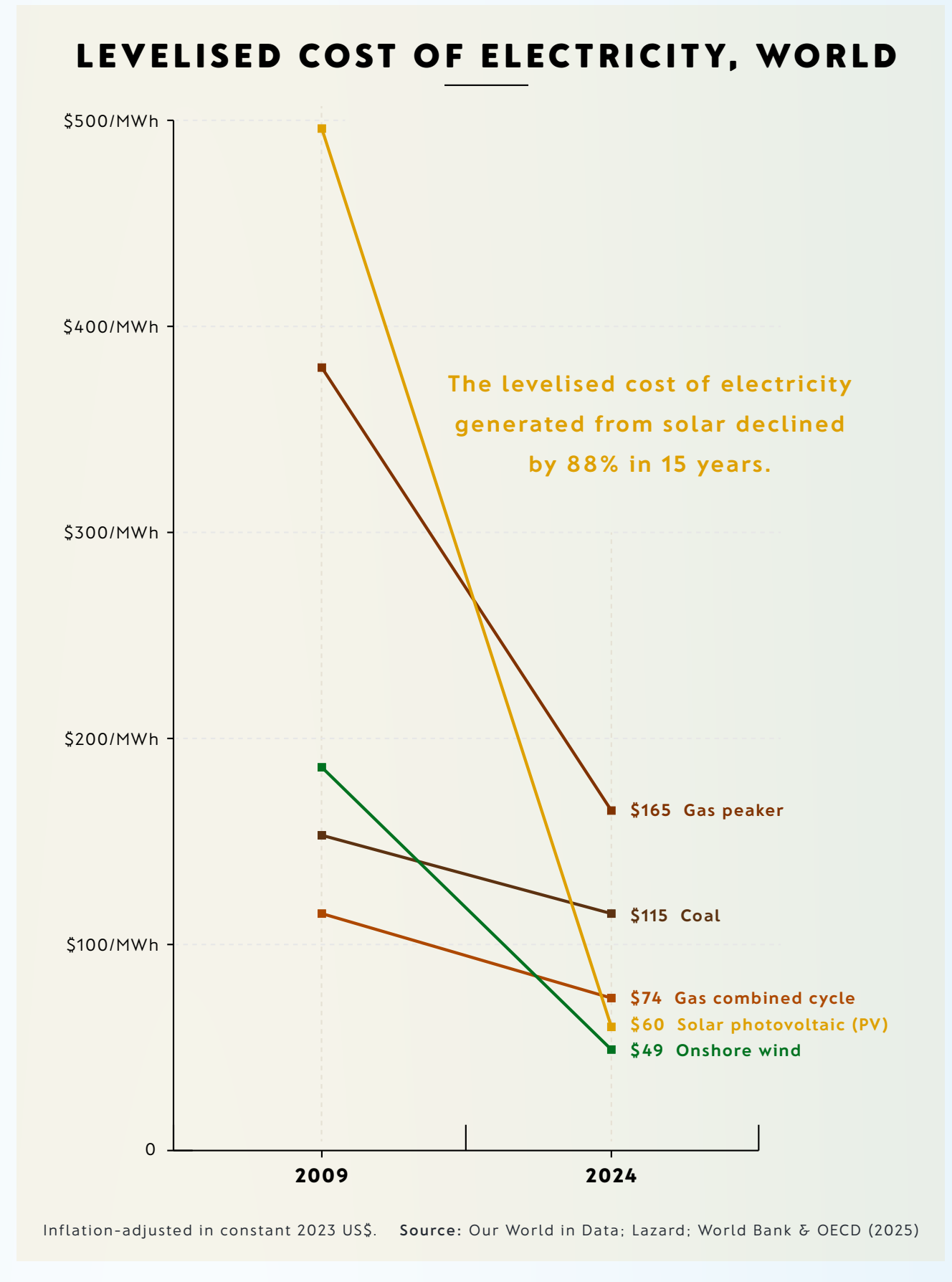
The levelised cost of electricity (LCOE) of **solar PV plus batteries** is already competitive with new coal-fired power in India and China, and new fossil gas-fired power in the US and Germany.

ROOFTOP SOLAR'S RISING

Pakistan saw record rooftop solar uptake in 2024, as falling costs and energy insecurity fuelled one of the fastest household transitions globally.

"**Australian** rooftop solar is the cheapest retail energy ever provided to consumers in human history."(Saul Griffith, 2025)

LEVELISED COST OF ELECTRICITY, WORLD



Inflation-adjusted in constant 2023 US$. **Source:** Our World in Data; Lazard; World Bank & OECD (2025)

3. THE COST DECLINE OF WIND GENERATION

CLEAN ENERGY

THEN 2014

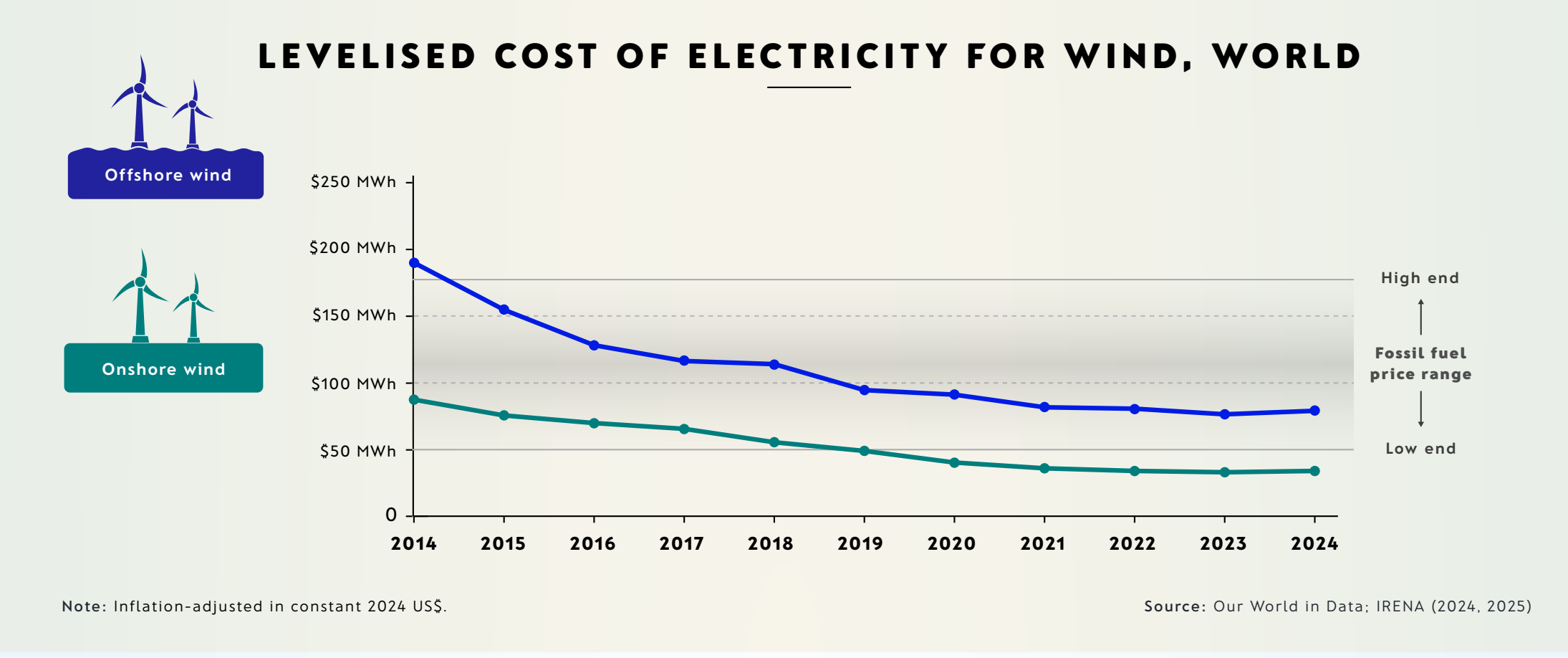
> "I think wind energy is the biggest collective economic insanity I've seen in my entire life. I've never seen anything more stupid, more illogical, or more irrational."
>
> — Nigel Farage, 2014

NOW 2025

New onshore wind remains the world's cheapest source of renewable electricity, though short-term costs have ticked up as inflation, US tariffs and shifts in Chinese manufacturing take effect.

- In 2023, new **onshore wind** projects delivered electricity at a cost of **67% below fossil alternatives.**
- Since 2010, installed costs of **offshore wind** declined by 48%, **driving a 62% decline in the levelised cost of electricity (LCOE).**
- In the US, Wood Mackenzie projects that onshore wind costs will fall about 40% by 2060, while offshore could decline by 67%, as learning curves, scale and supply chain maturity deepen.

LEVELISED COST OF ELECTRICITY FOR WIND, WORLD



Note: Inflation-adjusted in constant 2024 US$. **Source:** Our World in Data; IRENA (2024, 2025)

In 2025 President Trump called wind energy **"the most expensive energy there is. It's many, many times more expensive than clean natural gas, so we're going to try and have a policy where no windmills are being built."**

4. ENERGY INVESTMENT

CLEAN ENERGY

THEN 2015

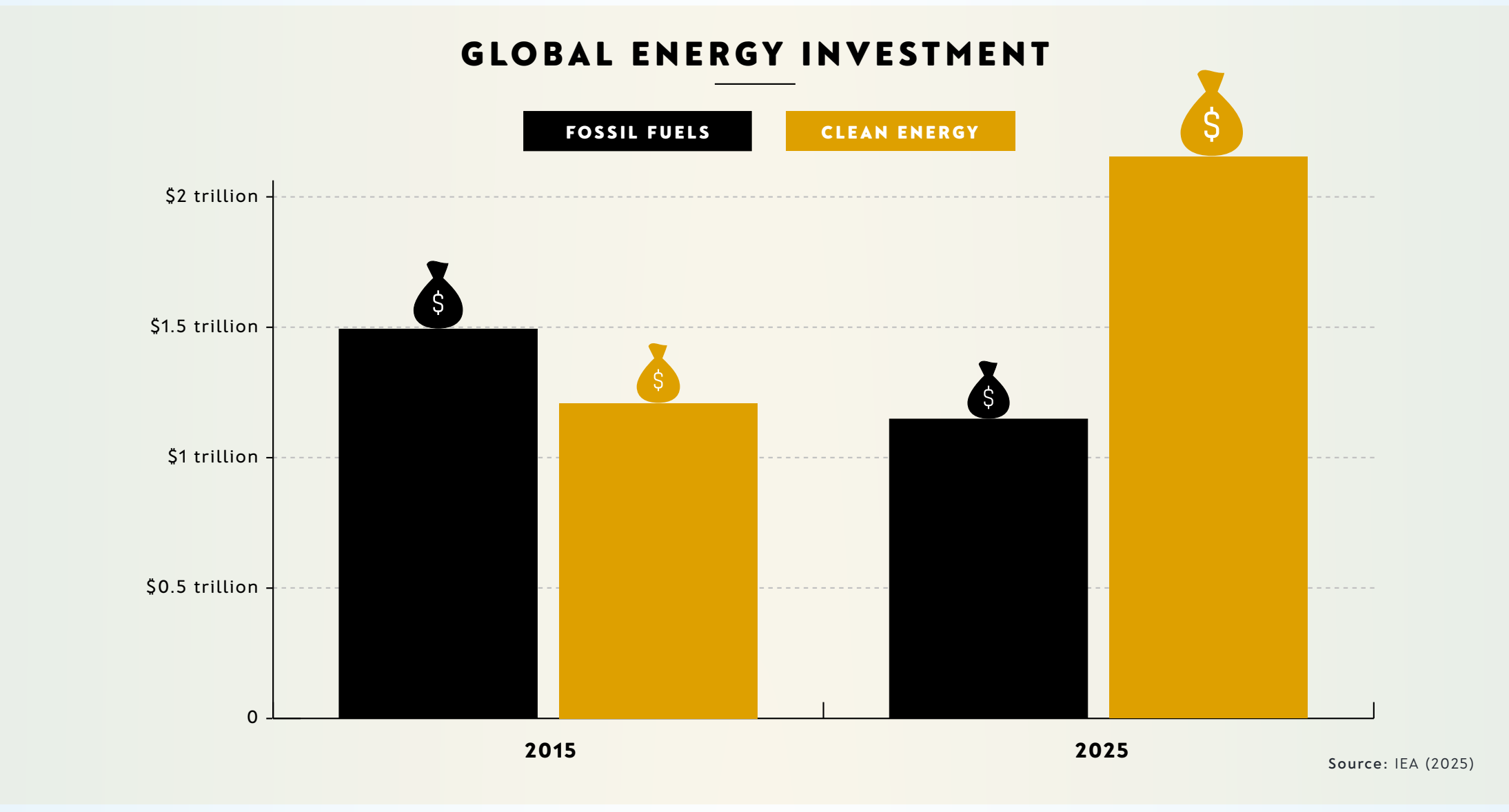
> "New investment in clean-energy generation declined in 2012-13 – down to $256 billion in 2012, and to $232 billion in 2013. This decline has resulted primarily from policy uncertainty..."
>
> — OECD, 2015

NOW 2025

About $2.2 trillion is being directed into clean energy technologies and infrastructure in 2025 — double the $1.1 trillion spent on fossil fuels.

- More than **$860 billion** is being invested into clean-electricity generation (renewables and nuclear). Solar PV investment in 2023 **was more than all other power generation technologies combined.**
- In 2024, for the first time on record, there were **no new orders for coal-fired steam turbines in advanced economies.**

GLOBAL ENERGY INVESTMENT



Source: IEA (2025)

Note: **Investment remains extremely uneven worldwide** — for example, Africa accounts for only 2% despite having 20% of the world's population — and **investment in grids is failing to keep pace** with spending on generation.

5. DEPLOYMENT OF ELECTRIC VEHICLES (EVs)

CLEAN ENERGY

THEN 2016

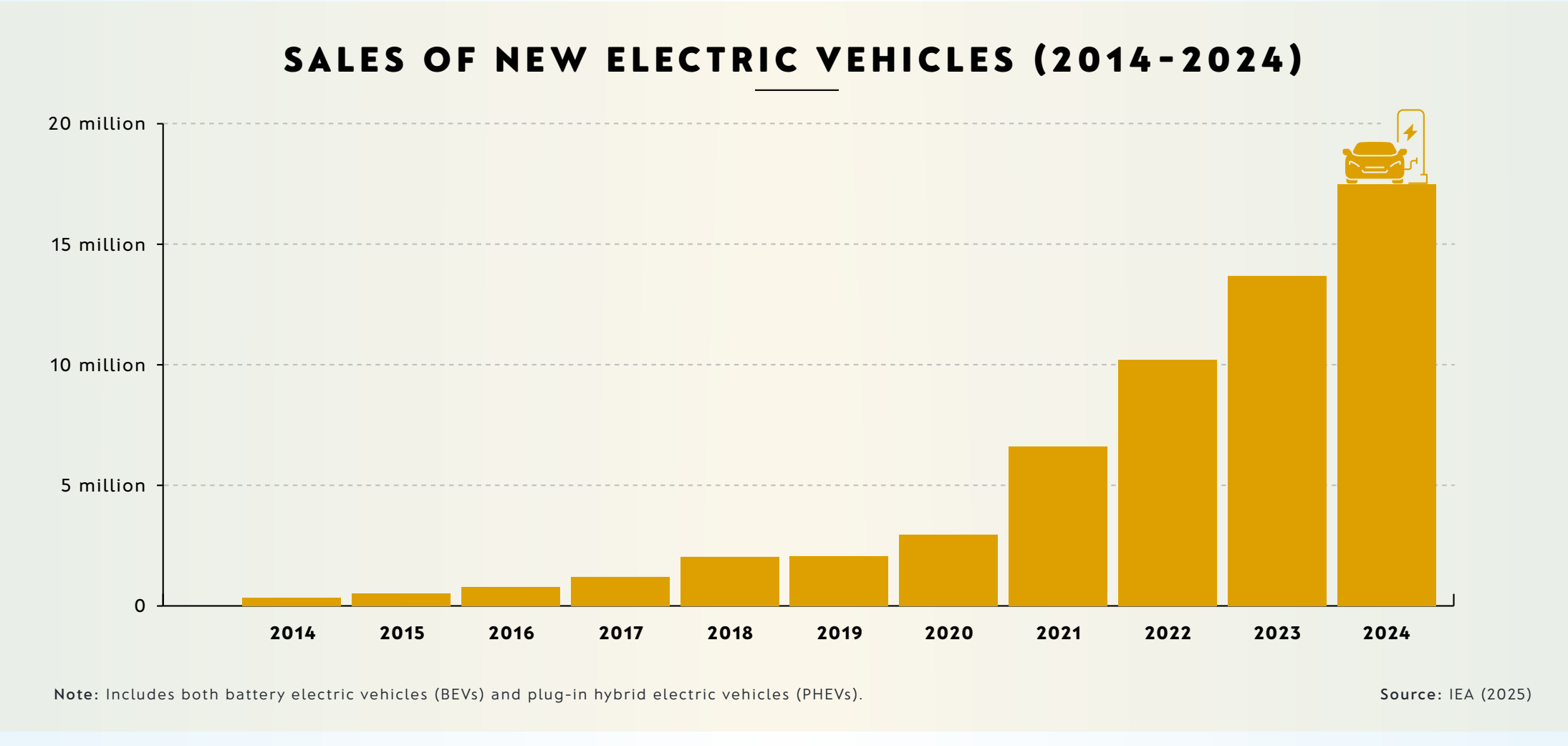
> Market share of EVs compatible with Paris-aligned emissions targets is "close to 20% by 2030, and 40% by 2040."
>
> — International Energy Agency (IEA), Global EV Outlook, 2016

NOW 2025

The 2030 outlook for EVs was surpassed in 2024, **with the 40% target now set to be achieved in 2030, ten years ahead of schedule.**

- **One in five cars sold globally is now electric** — up from just one in a hundred a decade ago. In 2024, China sold over six times more EVs than the US. **In Norway, 95% of new car sales are EVs.** In the UK, more than 20% of new car sales are battery electric vehicles (BEVs), up from 1% in 2019.
- In 2024 alone, EV rollout **avoided the use of more than 1.8 million barrels of oil per day.**
- EV-related manufacturing and battery supply chains now **employ 2.7 million** people globally.

SALES OF NEW ELECTRIC VEHICLES (2014-2024)



Note: Includes both battery electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs). **Source:** IEA (2025)

6. THE EMISSION PLATEAU

EMISSIONS

THEN 2015

> "Total carbon emissions from energy consumption **increase by 25% between 2013 and 2035.**"
>
> — BP Energy Outlook 2015

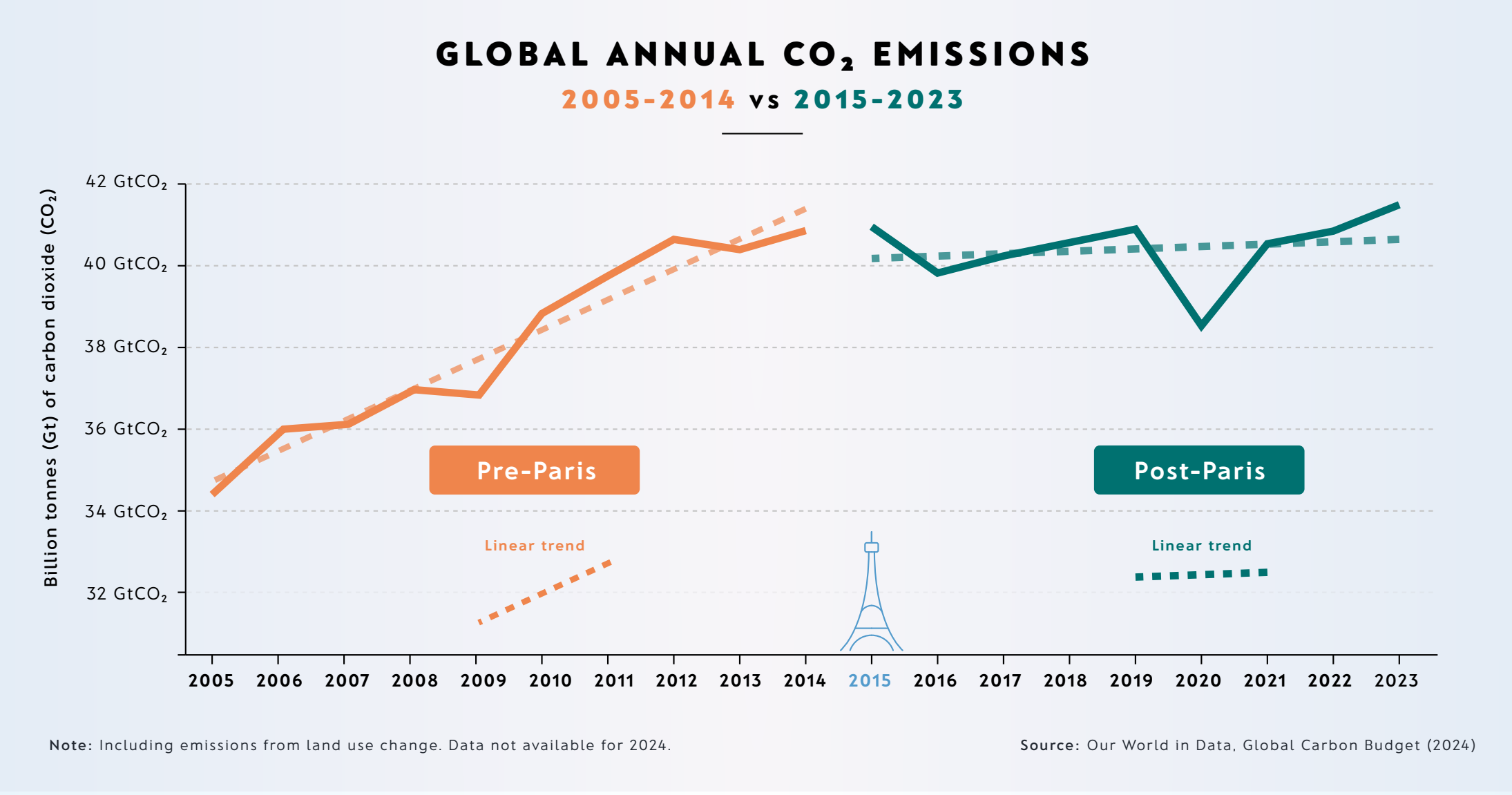
NOW 2025

Annual CO_2 emissions (including from land use change) are up just 1.2% since 2015. In the 10 years before the Paris Agreement (2005-2014) they rose by 18.4%.

- More broadly, global greenhouse gas emissions have risen, but at a compounded annual rate of only 0.3%. **In the decade before Paris, they rose more than five times faster**, at 1.7% per year.
- The emissions curve is bending because of national policies and the renewables revolution.

GLOBAL ANNUAL CO_2 EMISSIONS

2005-2014 vs 2015-2023



Note: Including emissions from land use change. Data not available for 2024. **Source:** Our World in Data, Global Carbon Budget (2024)

If the world is to meet the Paris Agreement temperature goals and achieve net zero by mid-century, **global emissions must enter a sustained decline, rather than simply plateau.**

Evidence points to a peak or near peak in global emissions, but the speed and depth of that shift will depend on the strength and consistency of future policy action. **And what happens in China:**

Clean-energy growth helped China's CO_2 emissions fall by 1% year-on-year in the first half of 2025, extending a declining trend that started in March 2024.

Decarbonisation gains were partly offset by rising emissions from industrial processes, particularly coal-to-chemicals, which is planning further expansion.

7. NET ZERO TARGETS

POLICY

THEN 2025

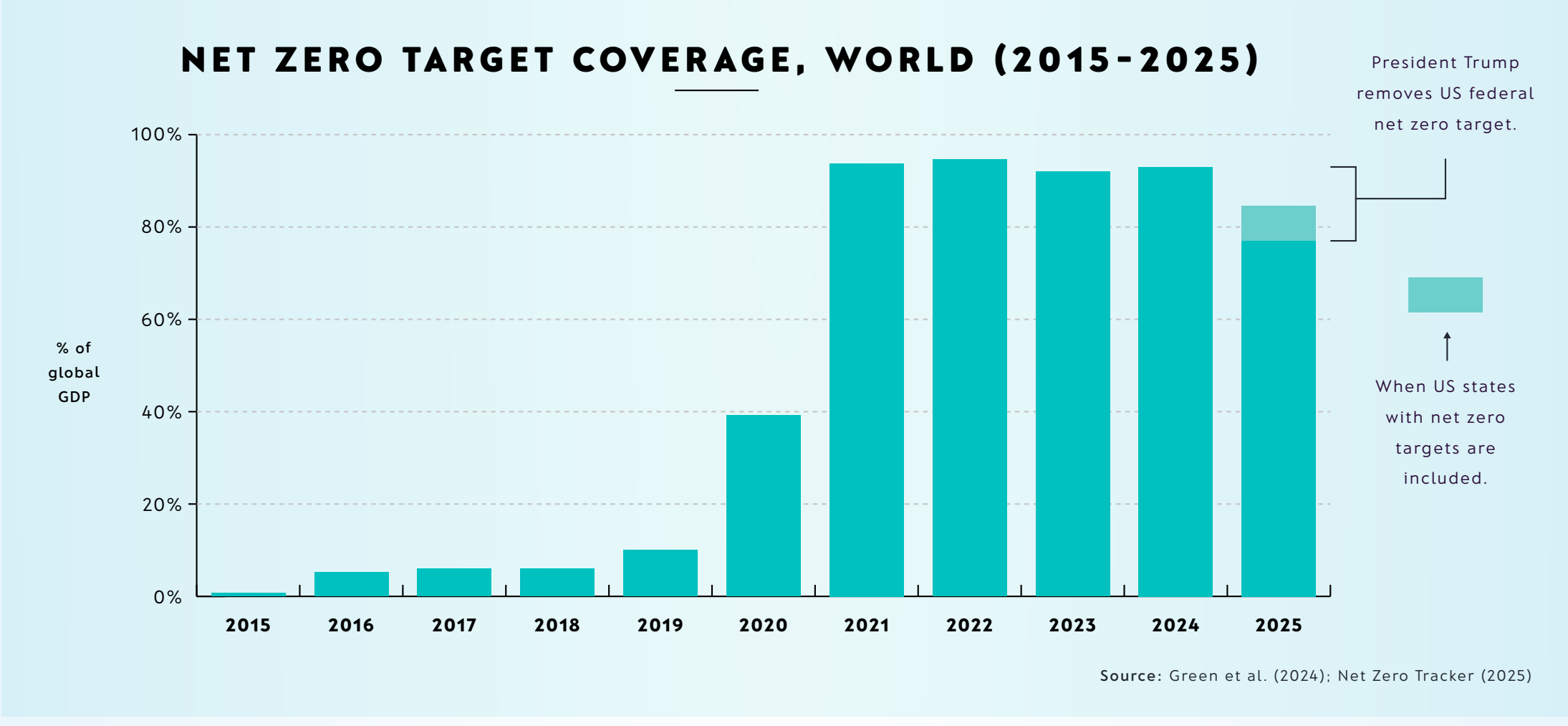
> "Britain's unique obsession with Net Zero, when we produce just 0.8% of the world's CO_2 emissions, is killing our economy faster than wokery, immigration and bureaucracy put together."
>
> — Matt Ridley, 2025

NOW 2025

As of October 2025, **at least 83% of the global economy is covered by net zero targets**, most of which are now enshrined in law or formal policy. This includes **19 members of the G20**.

- According to the IEA (2024), **"clean energy is boosting economic growth."** In China, the clean energy sector now accounts for roughly 10% of GDP (US$1.9 trillion) and **grew three times faster than the wider economy in 2024**.
- The UK's **'net zero economy' expanded 10% in 2024**, outpacing the rest of the economy three-fold.

NET ZERO TARGET COVERAGE, WORLD (2015-2025)



Source: Green et al. (2024); Net Zero Tracker (2025)

8. CLIMATE-RELATED POLICIES & LITIGATION

POLICY

THEN 2015

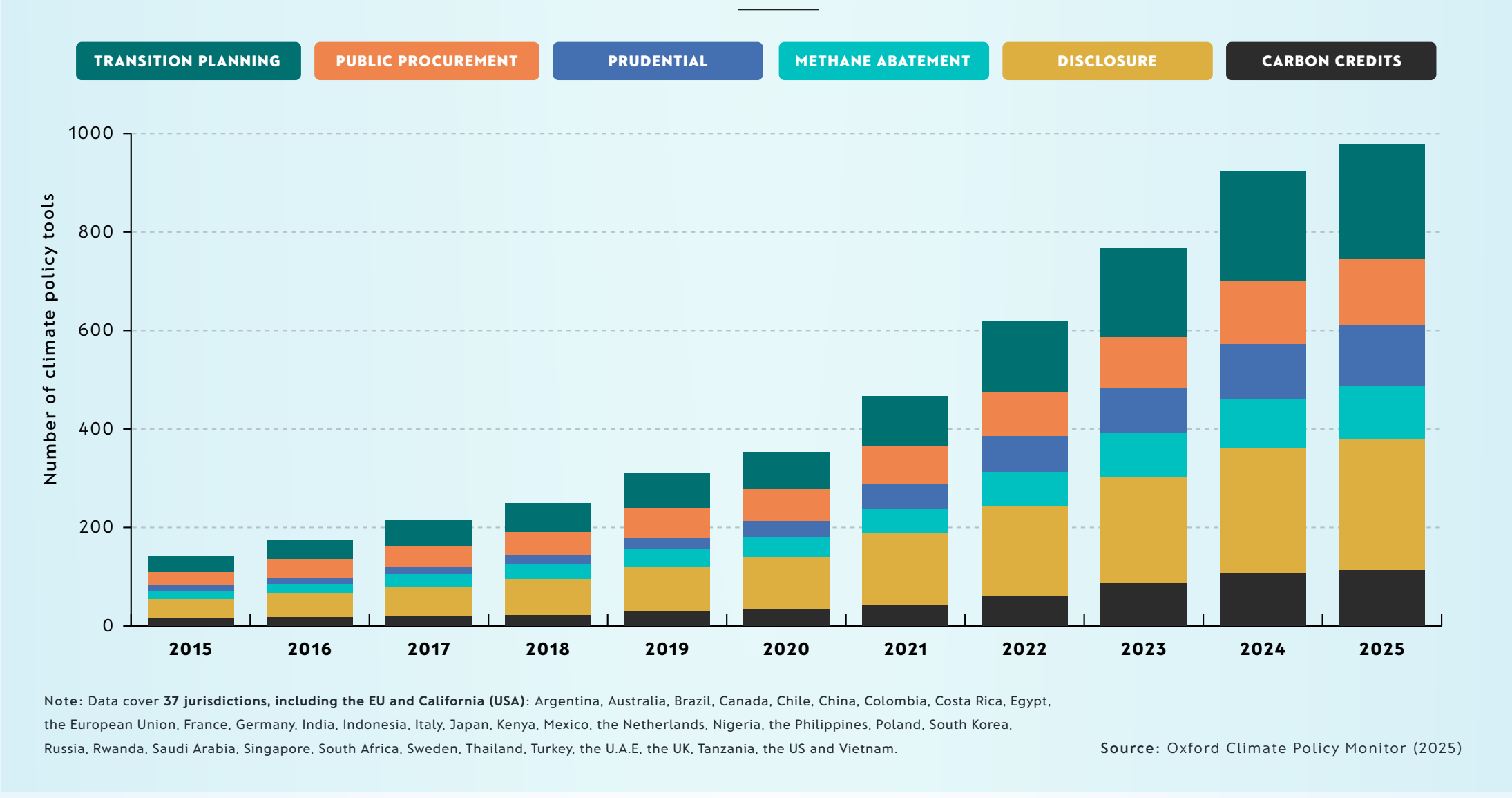
> To say that Paris will get us to 'well below 2°C' is cynical posturing at best. It relies on wishful thinking. It's like going on a diet to slim down, but declaring victory after the first salad.
>
> — Bjorn Lomborg, 2015

NOW 2025

National-level climate policy tools have increased seven-fold since 2015.

- More than **85% of tracked tools were introduced after the Paris Agreement** — 19 of the G20 have mandatory requirements to disclose GHG emissions, and 16 have mandatory rules to disclose physical and/or transition risk.
- Nearly **70 countries have adopted framework climate laws**, up from fewer than 20 a decade ago, and there the **number of national climate councils has tripled** (from 8 in 2015 to 26 in 2024).
- There are now more than **5000 climate-related laws and policies**, up from 1,200 in 2015.

TOTAL NUMBER OF CLIMATE POLICY TOOLS, BY YEAR (2015-2025)



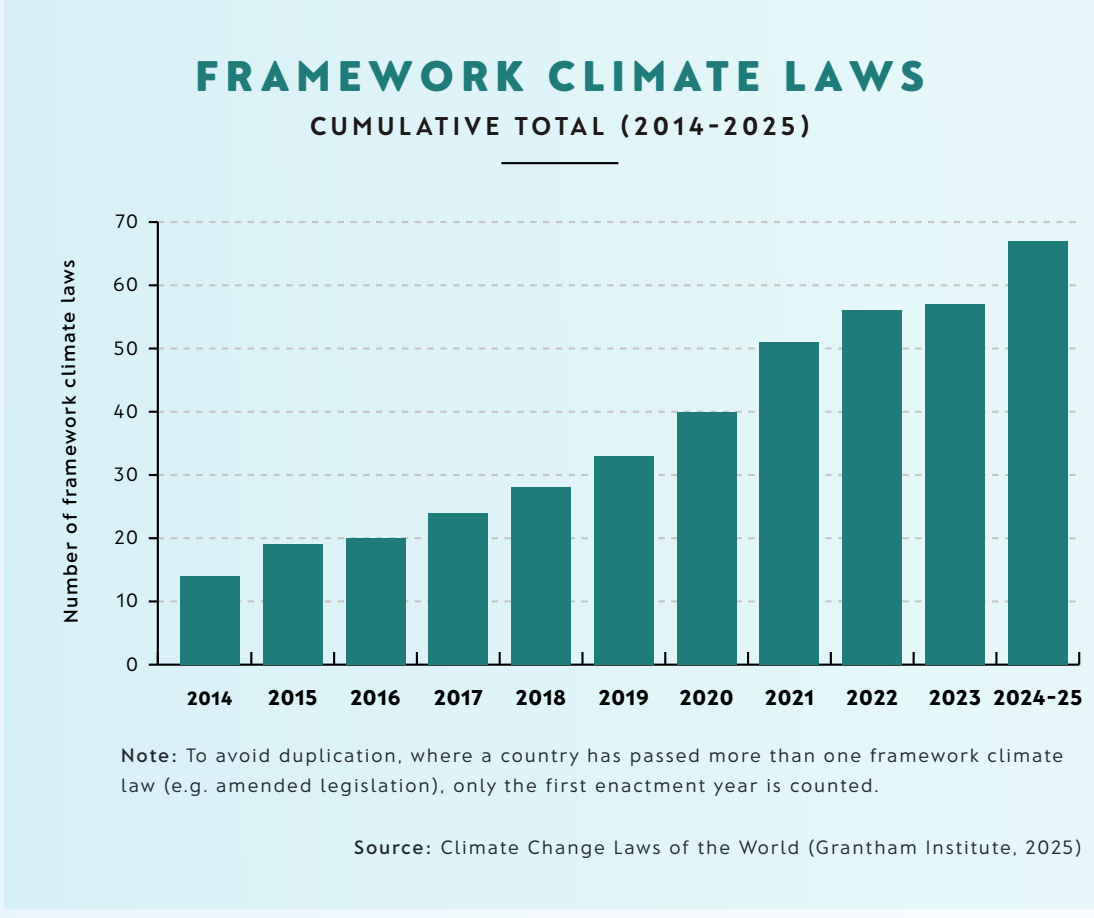
Note: Data cover **37 jurisdictions, including the EU and California (USA)**: Argentina, Australia, Brazil, Canada, Chile, China, Colombia, Costa Rica, Egypt, the European Union, France, Germany, India, Indonesia, Italy, Japan, Kenya, Mexico, the Netherlands, Nigeria, the Philippines, Poland, South Korea, Russia, Rwanda, Saudi Arabia, Singapore, South Africa, Sweden, Thailand, Turkey, the U.A.E, the UK, Tanzania, the US and Vietnam. **Source:** Oxford Climate Policy Monitor (2025)

Framework climate laws have expanded rapidly since 2015, with the number of countries adopting them more than tripling. This reflects a global shift from pledges to legally enshrined governance.

Climate litigation has risen in parallel — peaking in 2021 — as citizens and civil society increasingly turn to the courts to hold governments and companies accountable for climate inaction.

FRAMEWORK CLIMATE LAWS

CUMULATIVE TOTAL (2014-2025)

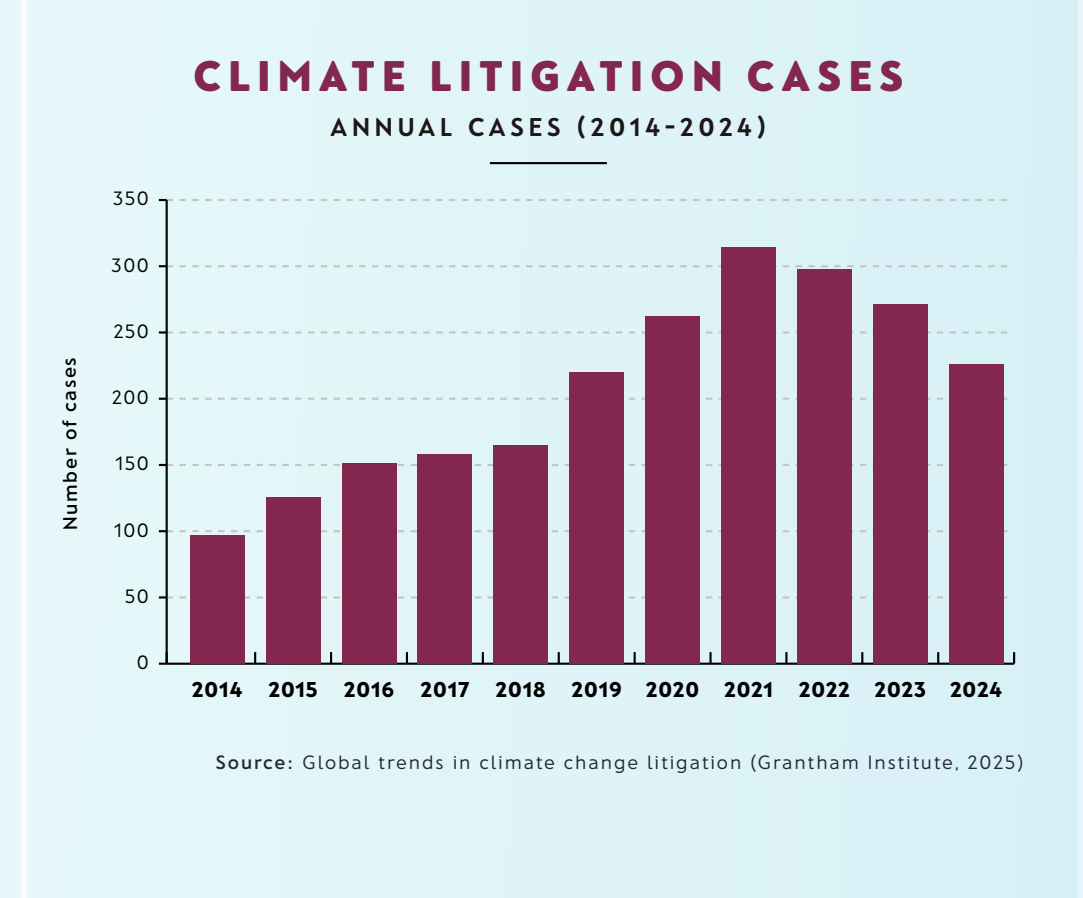


Note: To avoid duplication, where a country has passed more than one framework climate law (e.g. amended legislation), only the first enactment year is counted.

Source: Climate Change Laws of the World (Grantham Institute, 2025)

CLIMATE LITIGATION CASES

ANNUAL CASES (2014-2024)



Source: Global trends in climate change litigation (Grantham Institute, 2025)

9. JOBS IN THE CLEAN ENERGY ECONOMY

JOBS

THEN 2012

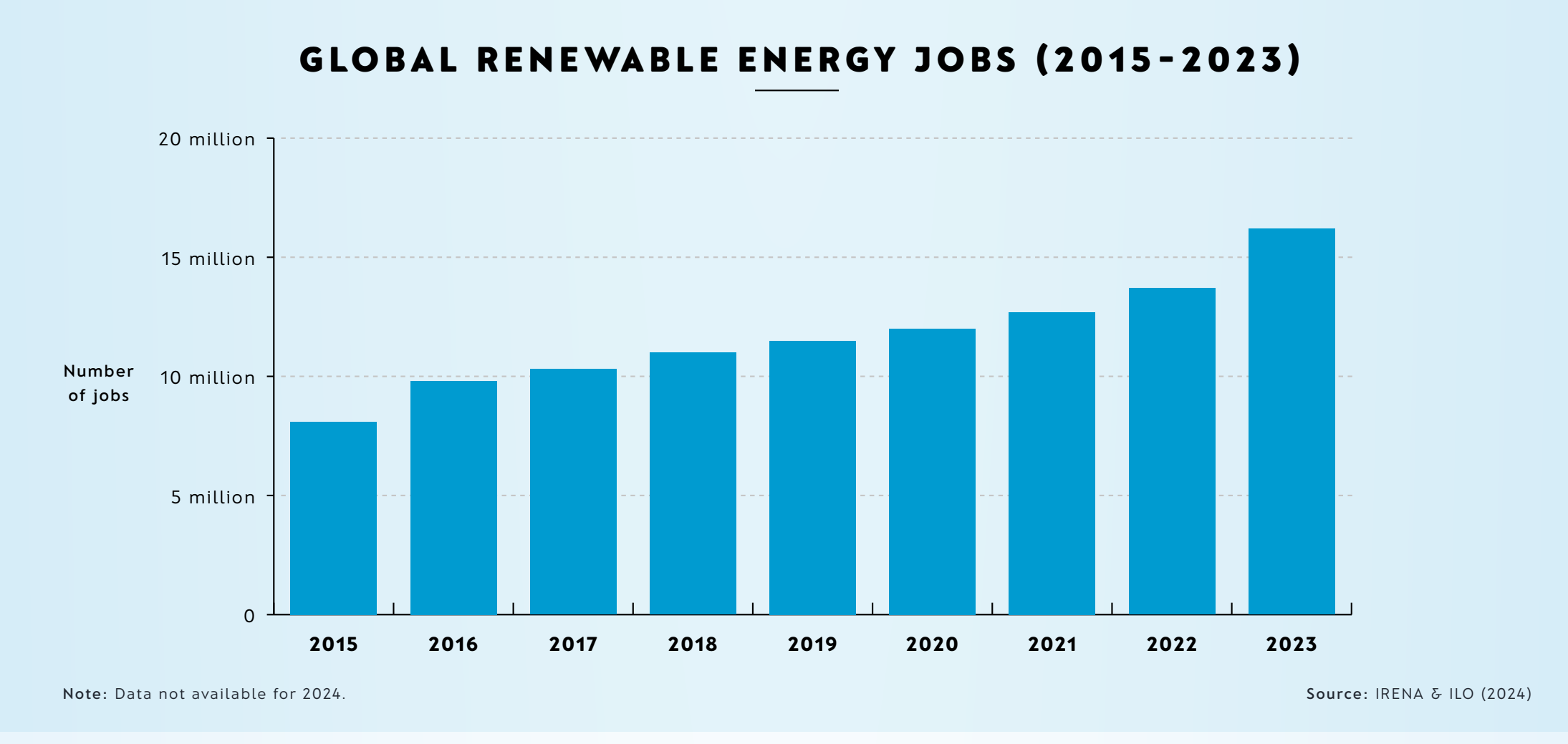
> "Government subsidies to new energy technologies haven't delivered on an often-made promise: They haven't created many new, permanent, well-paid jobs either in the EU or the US."
>
> — Vaclav Smil, 2012

NOW 2025

Renewable energy jobs have almost doubled since 2015, climbing from 8.5 million to **16.2 million in 2023** — led by solar PV and wind.

- China leads with 7.4 million renewables jobs, the E.U. has 1.8 million, and the U.S. and India has more than 1 million each.
- Across the wider energy system, **clean energy now outpaces fossil fuels, with 36.2 million jobs** compared with 33 million in oil, gas, coal and fossil fuel-engine manufacturing.

GLOBAL RENEWABLE ENERGY JOBS (2015-2023)



Note: Data not available for 2024. **Source:** IRENA & ILO (2024)

10. INSURANCE PREMIUMS

RISK

THEN 2015

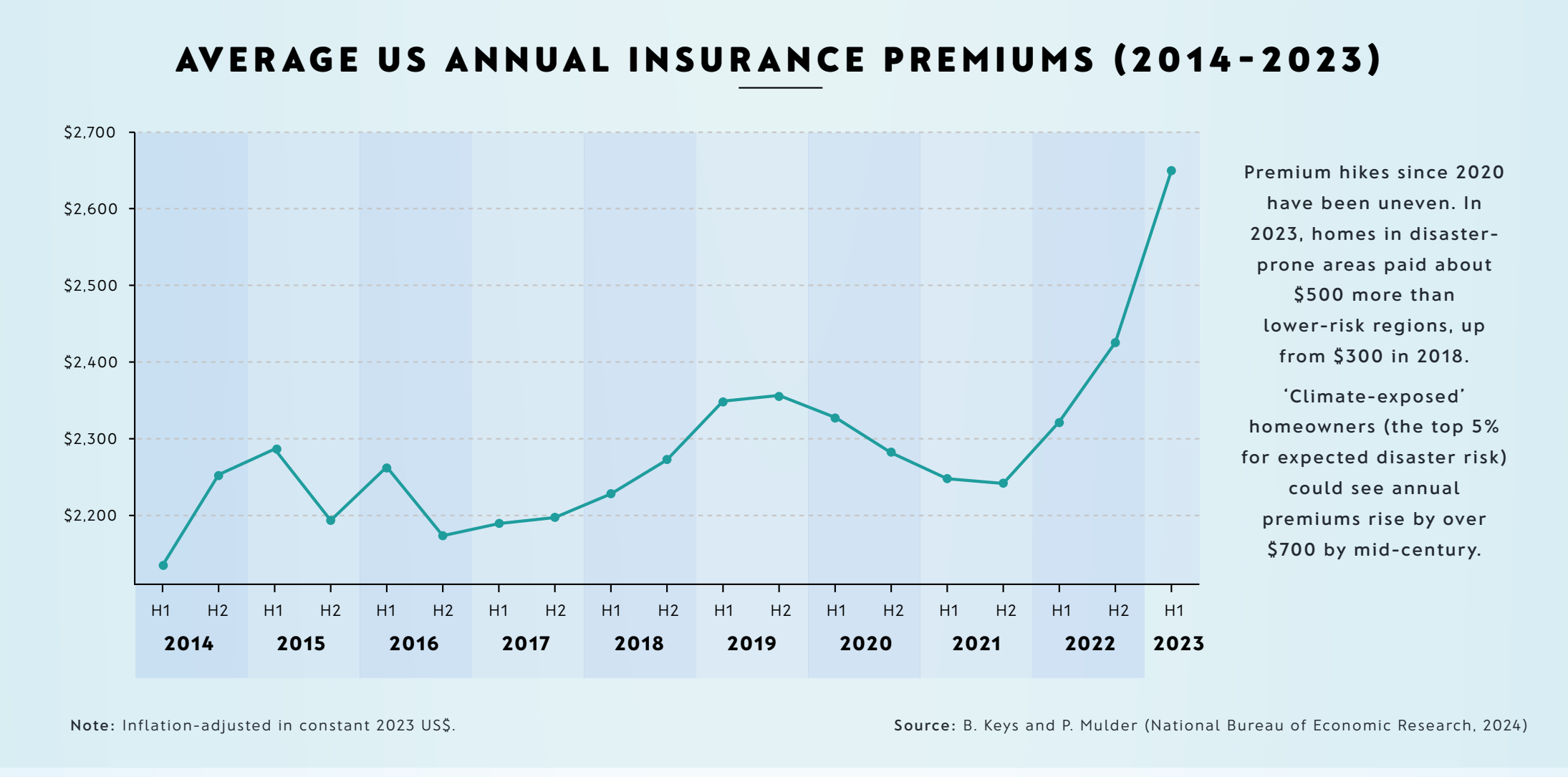
> "Absent actions to mitigate climate change, policyholders will also feel the impact as pricing adjusts and cover is withdrawn. Insurers' rational responses to physical risks can have very real consequences."
>
> — Mark Carney, 'Breaking the Tragedy of the Horizon', 2015

NOW 2025

In the US, average home insurance premiums have risen more than 30% since 2020, and in disaster-prone regions they're up nearly 50% — far faster than inflation.

- In the highest-risk US areas, **premiums are now 80% higher than lower-risk areas** — and still climbing as reinsurance costs grow and insurers retreat from coastal and fire-zone markets.
- In **California**, major insurers have stopped renewing tens of thousands of home policies, while **Florida** and **Louisiana** lead the nation in non-renewals, up 280% and 267% respectively since 2018.

AVERAGE US ANNUAL INSURANCE PREMIUMS (2014-2023)



Premium hikes since 2020 have been uneven. In 2023, homes in disaster-prone areas paid about $500 more than lower-risk regions, up from $300 in 2018.

'Climate-exposed' homeowners (the top 5% for expected disaster risk) could see annual premiums rise by over $700 by mid-century.

Note: Inflation-adjusted in constant 2023 US$. **Source:** B. Keys and P. Mulder (National Bureau of Economic Research, 2024)

11. NATURE, LAND USE & DEFORESTATION

NATURE

THEN 2015

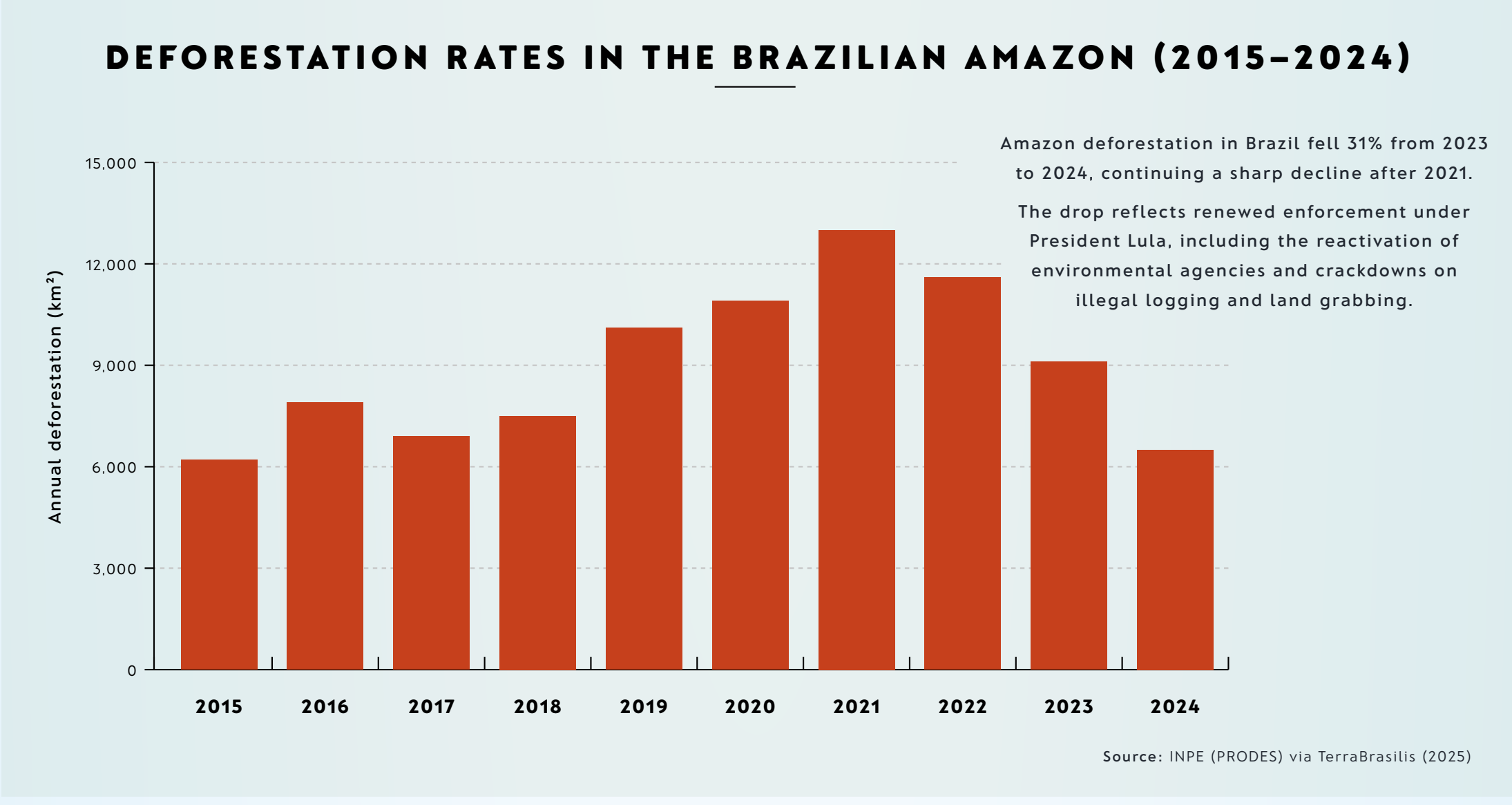
> "We will move to a low-carbon world because nature will force us, or because policy will guide us. If we wait until nature forces us, the cost will be astronomical."
>
> — Christiana Figueres, 2015

NOW 2025

Nature remains the poor relation in climate action, even as wildlife populations have fallen 73% since 1970. Despite rising attention, **finance for forests and ecosystems still falls far short of what's required.**

- Emissions from land use and deforestation **declined 33% from 2015 to 2023**, now around 4 $GtCO_2$ a year. But **agrifood emissions have barely budged, still making up about a third (31%) of the global total.**
- **In 2024, deforestation in the Brazilian Amazon fell to its lowest level in nine years** — down 50% since 2021 to around 6,500 km² — proof that focused policy and enforcement work.
- At **COP30 in Belém**, the spotlight is on scaling up billions in forest finance through the new **Tropical Forests Forever Fund (TFFF)**, aimed at protecting ecosystems and reversing deforestation at scale.

DEFORESTATION RATES IN THE BRAZILIAN AMAZON (2015–2024)



Amazon deforestation in Brazil fell 31% from 2023 to 2024, continuing a sharp decline after 2021.

The drop reflects renewed enforcement under President Lula, including the reactivation of environmental agencies and crackdowns on illegal logging and land grabbing.

Source: INPE (PRODES) via TerraBrasilis (2025)

12. ATTRIBUTION SCIENCE

SCIENCE

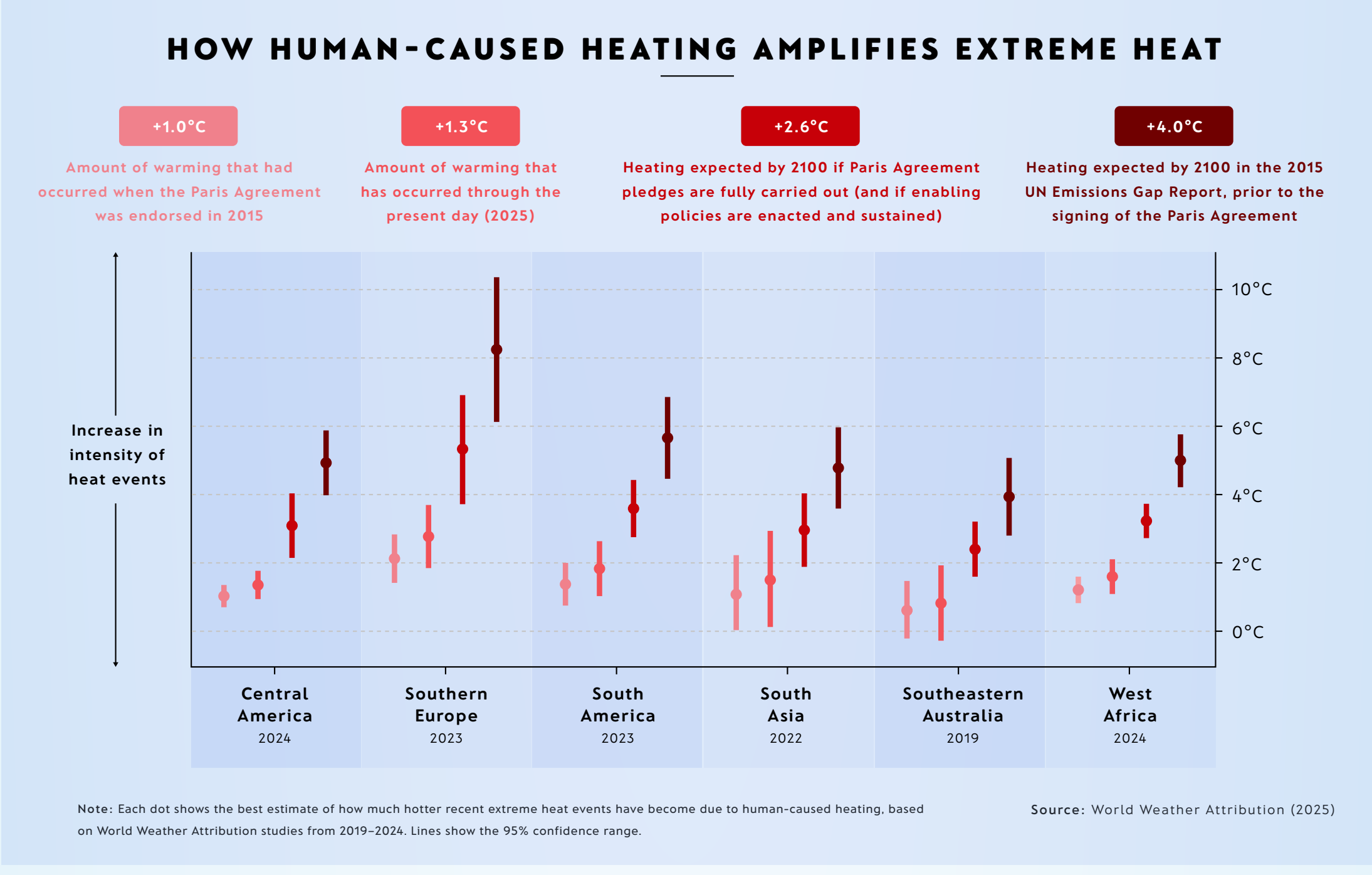
THEN 2016

> "I do not believe that it will ever be possible to look at a single event and say definitively if it would or would not have occurred in the absence of human influence."
>
> — Dr Clare Goodess, 2012

NOW 2025

- **"We can very confidently now say that every heatwave that is occurring today has been made more intense and more likely because of climate change."** — Dr Friederike Otto, 2022
- Attribution science now quantifies how human-caused warming influences the **likelihood and intensity** of specific extreme weather events.
- The record heatwave in 2023 **"would have been virtually impossible to occur in the US/Mexico region and Southern Europe if humans had not warmed the planet by burning fossil fuels."**

HOW HUMAN-CAUSED HEATING AMPLIFIES EXTREME HEAT



Note: Each dot shows the best estimate of how much hotter recent extreme heat events have become due to human-caused heating, based on World Weather Attribution studies from 2019–2024. Lines show the 95% confidence range. **Source:** World Weather Attribution (2025)

A decade ago, the world was on track for around **4°C of heating by 2100**. Today, that projection has fallen to about **2.6°C** because of progress in policy, clean technology and ambition since the Paris Agreement.

But 2.6°C of heating would still mean a dangerously hot planet. The Paris Agreement is the legal and political framework for avoiding that outcome and guiding even deeper progress across the next decade.

Achieving net zero CO_2 emissions by mid-century — alongside immediate, strong and sustained cuts in other greenhouse gases — **is the one and only way to halt rising temperatures and stabilise our climate.**

By John Lang

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