

ENERGY TRANSITION MONITOR 2026

The technology barrier has largely been crossed.
The challenges are system integration, finance and politics.

THE PARADOX OF PROGRESS

Clean technologies win on cost and scale, but fossil fuel decline is too slow.
The energy transition is not tracking fast enough to avoid dangerous warming.

RAPID SCALE UP OF CLEAN TECHNOLOGIES

Clean electricity grew **2.3x faster** than total energy supply and annual clean energy investment hit **\$2.2 trillion**.

PLATEAUING CO₂ EMISSIONS

Emissions **plateaued in 2025**, likely confirming China's peak. Growth in India slowed but is likely temporary.

OFF TRACK ON CLIMATE OUTCOMES

On current policy settings, **2.5°C+** of warming by 2100. Annual damages are already **~1% of global GDP**.

WHY?

ELECTRICITY STILL SUPPLIES ONLY ABOUT ONE-FIFTH OF GLOBAL FINAL ENERGY DEMAND

ELECTRICITY DEMAND IS SURGING.
CLEAN ELECTRICITY HAS TO GROW EVEN FASTER TO DISPLACE FOSSIL FUEL SUPPLY.

BUILDINGS

INDUSTRY & EVs

DATA CENTRES

THE FOUR BIG MISSES IN THE 2020s

1 COAL PHASE-OUT

Weak sign of action on legacy coal capacity.

2 METHANE ABATEMENT

Small decrease in fossil methane intensity and agriculture and waste emissions despite bankable solutions.

3 ENDING DEFORESTATION

Lack of funds and monitoring to halt damage.

4 SCALING REMOVALS

Demand gap and technology solution costs not coming down.

A TWO-SPEED GLOBAL TRANSITION

Clean power and EVs race ahead as the cost of firm clean energy falls. Heat electrification is not picking up, heavy industry is only beginning to commit capital and shipping and aviation are moving too slowly.

ELECTRIFICATION IS WINNING

60% of global GHG emissions can be abated through clean electrification at little or no additional cost. It is already taking off in power and road transport sectors.

HARD TO ELECTRIFY, AGRICULTURE & WASTE SECTORS NEED ATTENTION

The remaining **40%** of emissions still need breakthrough technologies, behaviour change or green premiums to be met. Carbon pricing, offtake agreements and grid access are key.

60% OF EMISSIONS CAN BE ABATED COST-EFFECTIVELY THROUGH CLEAN ELECTRIFICATION.

THE REMAINING 40% STALLS WITHOUT POLICY SUPPORT.

CLEAN POWER

Renewables are on track for a **1.9x increase** by 2030 against a COP28 tripling target – still roughly **900 GW** short.

ROAD TRANSPORT (EVs)

EV deployment is accelerating globally as battery costs continue to fall. EVs are expected to reach **28%** of new vehicle sales globally in 2026.

HEAT & BUILDINGS

High electricity prices slow heat pump adoption, while building efficiency is improving too slowly.

HEAVY INDUSTRY

70 near-zero steel plants are needed by 2030. Only **9%** have reached final investment decision (FID).

SHIPPING & AVIATION

Commercial solutions remain limited. SAF supplies less than **0.7%** of global jet fuel.

1,000 CLEAN INDUSTRY PROJECTS ANNOUNCED BUT LESS THAN 20% HAVE REACHED FINAL INVESTMENT DECISION

THE TRANSITION BOTTLENECK

GRID CONSTRAINTS ARE SLOWING THE DEPLOYMENT OF RENEWABLES, CLEANER INDUSTRY AND ELECTRIFICATION

**INTERCONNECTION
TRANSFORMERS
TRANSMISSION
DISTRIBUTION
SUBSTATIONS
PERMITTING**

UNITED STATES

About **2,300 GW** is stuck in interconnection queues with the median wait over **4 years**.

EUROPEAN UNION

375 GW of renewables and **455 GW** of battery storage are in permitting and connection queues.

A REGIONALLY UNEVEN TRANSITION

China leads deployment, India leads on cost, the US faces extreme policy uncertainty and the EU's historical momentum is slowing. Across the rest of Asia, the transition is speeding up, but unevenly, with policy, finance and fossil fuel dependence creating very different national trajectories.

UNITED STATES

Deployment remains resilient, but policy uncertainty is weakening the clean-energy pipeline.

21 GW cancelled since January 2025 and **zero** clean-industry investment decisions in 2025.

CHINA

Clean energy is expanding faster than the system can absorb, and coal is showing signs of a structural peak.

Produces **~85%** of the world's renewable equipment. But **~10%** wind and solar curtailed in Q1 2026 because of grid limitations.

UNITED KINGDOM

Past renewable success has cut UK emissions sharply, but maintaining momentum is now the challenge.

EVs account for **33%** of new passenger car sales, ahead of the EU average of 26%, but heat-pump uptake lags.

EUROPEAN UNION

Emissions are at 60-year lows; policy effort should be focussed on grids, electrification and end use.

Electrification is at **23%** against a 32% 2030 target. It only secured **3** new clean industry projects last year.

INDIA

Renewable power is among the world's cheapest, but grid and financing bottlenecks leave projects stranded.

Very cheap **\$30/MWh** solar and storage auctions – but India installs **12 times less capacity** than China.

THE NEW GEOPOLITICS OF TRANSITION

The Iran crisis has reminded the world that fossil fuel dependence means volatility. Unlike during the 1970s shocks, cheaper clean alternatives can now respond in months, not years.

VOLATILITY

Fossil fuel dependence risks regular price shocks.

ENERGY SECURITY

Clean energy reduces exposure to geopolitical chokepoints.

ACCELERATION

The shock has put a rocket under clean-energy deployment.

HORMUZ SHOCK'S TEMPORARY PRICE IMPACT

Oil (Brent crude)
+95%

European gas (TTF)
+105%

POST-HORMUZ CLEAN ENERGY SURGE

- 50 countries hit record solar imports (March 2026)
- China solar PV exports doubled in one month
- Ethiopia solar imports +390%
- Kenya solar imports +205%
- India solar imports +140%

BALANCING THE CENTRE OF GRAVITY

China's clean-tech dominance poses a strategic dilemma for other nations:
rely on Chinese capability to accelerate the transition, or diversify supply chains.

MANUFACTURING

83% of global wind, solar, and battery technology.

DEPLOYMENT

378 GW added in 2025, more than the rest of the world combined.

INVESTMENT

13 of 19 clean-industry final investment decisions in the first half of 2026.

COSTS

Solar, wind, and batteries are around **25–60% cheaper** than the rest of the world.

BALANCING PHASE DOWN WITH BUILDING THE NEW

The energy transition is moving at **unprecedented speed**, led by solar and batteries. But harder-to-electrify sectors must accelerate over the next few years. Current pledges can keep warming **well below 2°C**, though limiting overshoot of 1.5°C is slipping out of reach.

Phase down the old. Build the new. Accelerate both.