Public Policies:

Recent Developments

& Outlook

NDC LANDSCAPE: EU SUBMITS AT COP30, USA EXITS, CHINA PEAKS?

China

- NDC 3.0: first absolute reduction target (−7 to −10% from peak by 2035). All GHGs covered.
- CO_2 flat or falling for 21 months. 2025: −0.3%. Peak "finely balanced."
- 430 GW wind+solar added in 2025 (+22%). Wind+solar = 22% of electricity. NEVs >50% of new car sales.
- ETS expanded: steel/cement/aluminum (≈60% of CO_2). Price: $8–14/t.
- But: 83 GW new coal started (record). CAT: "Highly Insufficient."

European Union

- NDC 3.0 at COP30: 66–72.5% reduction by 2035 vs. 1990. CAT: "Almost Sufficient."
- 2040 target: −90% net under EU Climate Law.
- On track for −55% by 2030. ETS reform operational. ETS II delayed to 2028.
- Open Coalition on Carbon Markets with Brazil (16 countries, 40% of emissions).
- Called Belém Package "insufficient." LNG deal with US signed.

United States

- Paris withdrawal effective. First UNFCCC exit attempt ever.
- OBBBA: EV credits ended; solar/wind phased out post-Jul 2026; $27B GHG fund repealed. Nuclear/CCUS preserved.
- EPA rescinded GHG Endangerment Finding — no legal basis for federal GHG regulation.
- Yet: record $378B clean investment; 42% zero-carbon electricity; 24 governors maintain Paris targets.
- GHG +2.4% in 2025. Rollbacks: +600–800 Mt/yr by 2040 vs. Biden path.

COP30 NDC SUBMISSIONS: 80% OF EMISSIONS COVERED, BUT STILL ON A 2.3°C- 2.5°C PATH

, **122 countries submitted NDCs (~80% of emissions)** including 29 around COP30 (Oct–Nov 2025). Implementation projects −12% vs 2019 by 2035. **Collective implementation still projects 2.3–2.5°C warming.**

Indonesia

First-ever absolute cap: 1.26–1.49 $GtCO_2e$ by 2035. Conditional on $20B JETP financing. 36 GW renewables by 2030. ETS operational since 2023. CAT: "Highly Insufficient."

Turkey

Target: 643 $MtCO_2e$ by 2035 (−7% vs 2030, but +32% vs 2022 actual). Peak brought to 2035. Net-zero 2053 in Climate Law. Still 36% coal. CAT: "Critically Insufficient." COP31 candidate.

South Africa

2035 targets below 2030 range (350–420 Mt). Ambition not increased. Coal phase-out facing major delays. Needs $8B/yr intl. finance (currently $2B). CAT: less compatible with 1.5°C.

G20 missing

India (~7%), Saudi Arabia (~2%), South Korea (~2%), Argentina (~1%) did not submit NDC 3.0. Together: ~12% of global emissions unaccounted. India under sustained pressure; no 2035 absolute target.

COP30 BELÉM: “IRREVERSIBLE” TRANSITION, BUT NO FOSSIL FUEL PHASE-OUT ROADMAP

Belém Package adopted by 195 Parties declaring the clean energy transition "irreversible”. No fossil fuel phase-out roadmap but Belém Mission to 1.5°C and Global Implementation Accelerator launched.

Finance

Tripling of adaptation finance by 2035 (Mutirão). $1T on clean grids for developing nations. NCQG $300B/yr confirmed; Baku-to-Belém Roadmap toward $1.3T/yr by 2035.

Carbon markets (Art. 6.4)

PACM adopted first methodology — Paris crediting mechanism operational after years of deadlock. EU-Brazil Open Coalition: 16 countries, ~40% of global emissions.

Just Transition

First Just Transition Mechanism under Paris Agreement. Belém Mission to 1.5°C and Global Implementation Accelerator launched — concrete results pending.

US absence

No official US delegation (first time in COP history). 24 states (57% of economy) pledged action. Bloomberg covered ~$7.4M UNFCCC funding gap (~21% of operating budget).

$ CARBON PRICING, RENEWABLES & EV MANDATES: MIXED SIGNALS

Carbon pricing

- 80 instruments globally (43 taxes + 37 ETSs) vs 5 in 2005. Cover 28% of GHG emissions.
- Mobilized >$100B for public budgets in 2024. Avg price doubled to ~$19/t.
- ⅔ of global GDP has direct carbon pricing. >50% of power sector covered.
- China ETS: ~60% of nat. emissions (~8 Gt). Absolute cap ~2030.
- Article 6.4 adopted first methodology at COP30 — Paris crediting operational.

Renewable energy

- Gap: 3.7 TW still needed by 2030 for COP28 tripling goal.
- China: 1,840 GW wind+solar — surpasses thermal capacity.
- USA: 42% zero-carbon electricity (record). OBBBA threatens 300+ GW pipeline.
- 54 GW commissioned in US in 2025 — rush to beat deadline.
- Grid challenge: solar curtailment rising; storage lagging.

Electric vehicles

- China: ~50% NEV in new sales. 10M+ chargers (+56% YoY).
- USA: 1.6M EV sales (record) with credits eliminated Sept 2025.
- CA + 14 states = ~40% of US auto market backstop.
- $34.8B clean energy cancelled in US — 3× new announcements.
- EU: ~15–18% share in new sales. 100% ZEV by 2035 under review; penalties deferred.

Source: World Bank, IEA, MSCI

WHAT SCIENCE SAYS: POLICY PORTFOLIOS WORK, COERCION BACKFIRES

Policy portfolios drive reductions

Analysis of 3,917 policies across 43 countries (2000–2022). Avoided 27.5 $GtCO_2$ cumulatively; 3.1 $GtCO_2$/yr in 2022.

Policy density and specialization in economic instruments (carbon pricing, trading) drive fastest reductions.

Long-term absolute targets + dedicated climate ministries amplify effectiveness.

Source: Arvanitopoulos et al., Nature Comms (2026)

Behavioral backlash risk

German survey (n=3,306): enforced climate mandates trigger control aversion 52% higher than COVID restrictions.

Pro-environment citizens most resistant when perceiving freedom loss.

Policy implication: design must cultivate green values rather than crowd them out.

Coercive instruments (bans, quotas) may undermine long-term support even in high-trust societies.

Corporate alignment gap

MSCI Tracker Q4 2025: only 19% of listed companies have SBTi-validated targets (up from 14%).

Aggregate corporate trajectory: 3°C warming — 62% of companies exceed 2°C threshold.

Climate funds AUM: $652B, median return 12.2% in 2025.

Gap between financial commitments and actual decarbonization remains structural.