

Ten Years After Paris: Transition Outlook

UNITED STATES

Emissions trajectory since Paris Agreement

Emissions declined through the late 2010s and remain 17% below 2005 levels (2022), but recent progress has slowed, leaving the country off track for its 2025 and 2030 NDCs.

Progress

Structural change led by the power sector

U.S. economy-wide emissions are ~17% below 2005 levels (2022), driven mainly by the power sector. **Electricity emissions have fallen ~36% since 2005**, reflecting coal retirements and falling renewable costs, though reductions remain too slow to meet near-term targets.

Transport: structural shift underway, but impacts still limited

Since Paris, **transport policy has shifted toward electrification and fuel efficiency, supported by regulations, expanded EV incentives and charging infrastructure**. While this represents a structural change, **emissions have declined by only ~8% since 2005**, leaving transport as the largest emitting sector.

Institutional evolution toward multi-level implementation

Under the federal system of the United States, **subnational actors, including states, cities, and businesses, have increasingly enacted their own bold climate action** in coordination with federal investments and regulations. This multi-level approach has supported continued climate progress despite policy shifts at the federal level.

Enablers

Large-scale federal investment frameworks

The **Inflation Reduction Act (IRA) and Bipartisan Infrastructure Law (BIL)** mobilized unprecedented support for clean electricity, EVs, clean manufacturing and household electrification, anchoring climate action within broader industrial policy. While recent policy rollbacks have diminished full potential, remaining incentives and earlier policy effects continue to enable U.S. climate progress.

Sub-national leadership and policy experimentation

States and cities play a central role in electricity regulation, building codes, transport planning and land use. **Climate coalitions and local climate action plans** have helped sustain momentum and policy learning, even during periods of federal slowdown.

Industrial and technological capacity

The U.S. benefits from **strong innovation ecosystems in clean power, batteries and digital technologies**. These capabilities support deployment and position clean energy and manufacturing as engines of investment and job creation.

Main Transformations Needed in Key Sectors



Electricity

A **managed phase-out of unabated natural gas**, faster permitting, expanded interregional transmission and **unlocking stalled renewable** projects to sustain power sector decarbonization.



Transport

Beyond passenger EVs, **reductions require lower vehicle miles traveled**, electrification of freight and scaling sustainable aviation fuels.



Buildings

Overcoming high retrofit costs and aging building stock, while accelerating heat-pump deployment and efficiency upgrades.



Industry

Early-stage investment and large-scale infrastructure for clean industrial processes, alongside commercial demonstrations.

Barriers

Policy volatility and investment uncertainty

Shifts between federal administrations have repeatedly altered climate priorities, affecting regulatory stability and investor confidence. Since 2025, rollbacks and delayed implementation of IRA/BIL provisions have slowed momentum.

Infrastructure and permitting bottlenecks

More than 1 terawatt of renewable capacity remains stuck in interconnection queues, while transmission expansion and permitting reform lag behind deployment needs. The new federal administration has also created obstacles for permitting and leasing renewable energy, especially wind, while relaxing regulations on oil and gas leasing and drilling.

Persistent challenges in hard-to-abate sectors

Emissions reductions in transport, buildings and industry are limited by rising demand, retrofit costs, long-lived assets and slow uptake of low-carbon fuels and carbon management technologies.