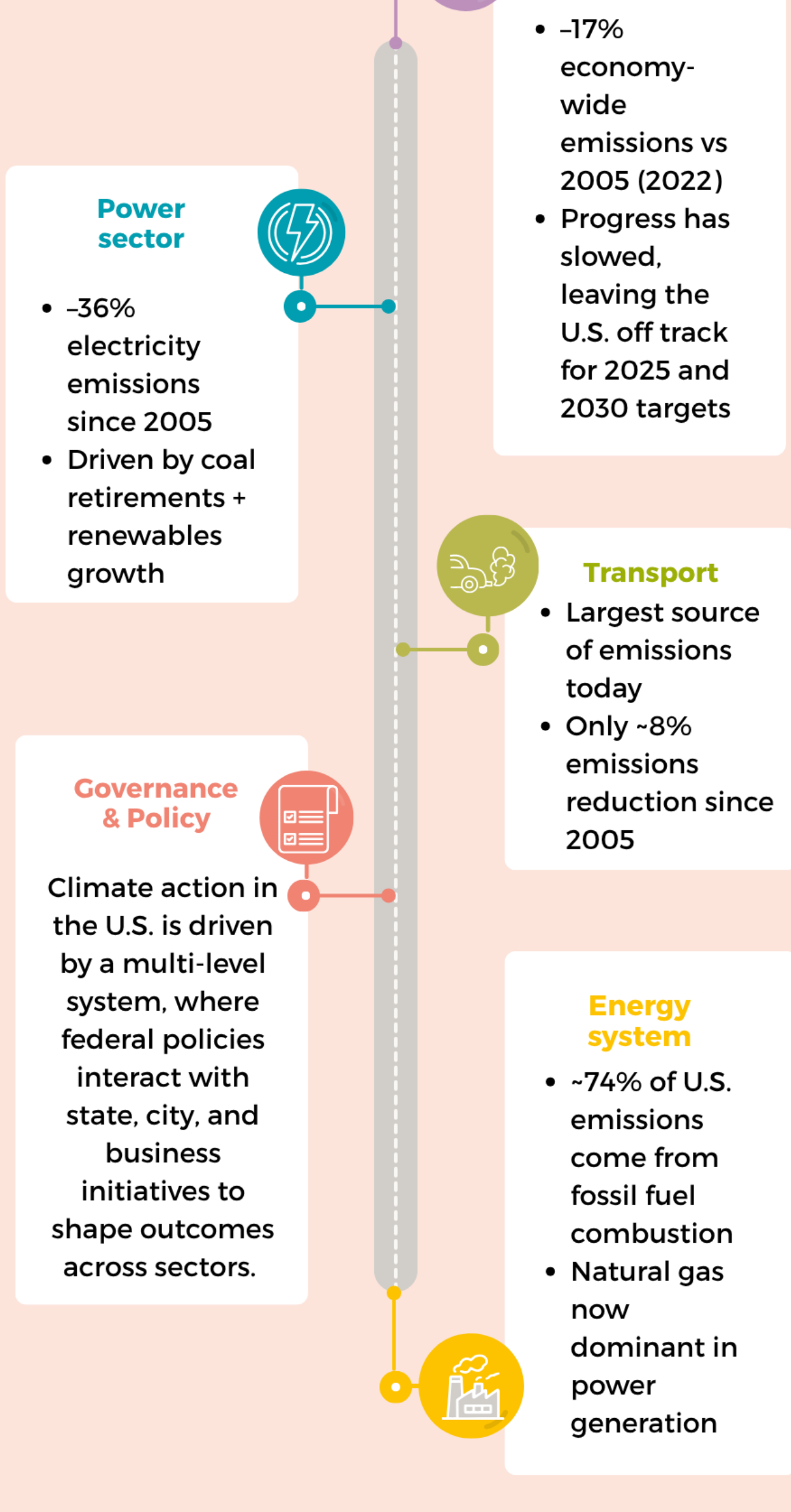


## Deep Decarbonization Pathways

# DDP Insights

## United States

### United States: progress shaped by policy and its volatility



The United States’ climate pathway over the past decade reflects both measurable progress and shifting policies.

Economy-wide emissions are now around 17% below 2005 levels (2022), continuing a longer-term decline since their peak in 2007. But the pace of reductions has slowed in recent years, leaving the country off track for its 2025 and 2030 climate targets.

This trajectory captures a defining feature of U.S. climate action since Paris in 2015: progress driven by consistent climate leadership from subnational actors and market forces, and occasional, large-scale federal policies. However, this progress has been uneven over time due to changes in political direction, as marked by the announcement of the withdrawal of the U.S. from the Paris Agreement in 2017 and in 2025, corresponding to a period of weakening of federal policies supporting climate action.

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### Power sector transformation driving emissions reductions

Most emissions reductions have come from the electricity sector.

Since 2005, power sector emissions have fallen by around 36%, driven by coal retirements and the rapid expansion of renewables, alongside falling technology costs.

### Transport and other sectors: slower structural change

Outside the power sector, progress has been more limited.

Transport is now the largest emitting sector, with emissions declining by only around 8% since 2005, despite improvements in fuel efficiency and some growth in electrification for passenger vehicles. Electric vehicles (EV) uptake has been relatively slower compared to other countries; U.S. EV sales reached 9% in 2025, compared to over 25% globally.

This reflects broader structural challenges. Rising travel demand has offset efficiency gains, while deeper reductions will require shifts beyond passenger vehicles, including freight electrification, reduced vehicle miles traveled, and alternative fuels for aviation and shipping.

Similar constraints are visible in buildings and industry, where high upfront costs, long-lived assets, and emerging technologies continue to slow the pace of change. Still, more stringent building codes, appliance standards, and other policies have led to increased electrification and energy efficiency improvements in the buildings sector, with electric heat pumps outselling gas furnaces in recent years.

### A multi-level system: progress beyond federal policy

A defining feature of U.S. climate action is its multi-level governance structure.

While federal policies have shifted significantly over time, states, cities, and businesses have continued to implement their own climate strategies, shaping outcomes across electricity, transport, buildings, and land use.

This has allowed climate action to continue even during periods of federal rollback, with subnational actors in support of climate action representing a large share of the U.S. economy and population.

At the same time, large-scale federal investment — particularly through the Inflation Reduction Act (IRA) and Bipartisan Infrastructure Law (BIL) — and regulations have played a critical role in accelerating clean energy deployment, supporting electrification, and embedding climate action within broader industrial policy.

### What this tells us

The U.S. pathway shows that progress is possible even within a complex and shifting policy landscape but sustaining it requires greater consistency.

The next phase of the transition will depend on addressing structural bottlenecks, particularly in infrastructure and permitting, where more than 1 terawatt of renewable capacity remains stuck in interconnection queues.

At the same time, deeper decarbonization will require accelerating change in sectors that have so far lagged (including transport, buildings, and industry) while maintaining momentum in the power sector.

More broadly, the U.S. experience highlights the importance of aligning policy, investment, and governance across levels of government. As the transition enters a more complex phase, the challenge is no longer whether progress is underway, but whether it can be sustained — and scaled — across the entire economy.

### About DDP Insights

DDP Insights builds on the work of the Deep Decarbonization Pathways (DDP) Initiative, drawing on country-driven analysis to explore how national climate goals translate into real-world transformation.



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