Climate & Earth Systems | Feb 3, 2026 | 10 min read | By Bryan White

Sabin Center's Climate Deregulation Tracker, By the Numbers: The Systemic Dismantling of U.S. Climate Policy

Environment * Climate Change * Ethics

Introduction: The Oscillating State of U.S. Climate Governance

Environmental governance in the United States has long been defined by an oscillation between regulatory expansion and administrative retrenchment. Because foundational statutes -- including the Clean Air Act, the National Environmental Policy Act (NEPA), and the Energy Policy and Conservation Act -- delegate broad interpretive authority to executive agencies, federal climate policy shifts dramatically across presidential transitions.[1][3] Utilizing the "Climate Deregulation Tracker" (established in 2017) and its successor, the "Climate Backtracker" (launched in January 2025), developed by the Sabin Center for Climate Change Law at Columbia Law School, this report reconstructs the systemic dismantling of federal climate mitigation across the first (2017-2021) and second (2025-present) Trump administrations.[1][2]

Within the first year of the second term alone, the Climate Backtracker documented over 304 distinct deregulatory actions across the Environmental Protection Agency (EPA), the Department of the Interior (DOI), the Department of Energy (DOE), the Department of Transportation (DOT), and the Council on Environmental Quality (CEQ).[2][5] Synthesizing Executive Orders, Federal Register rulemakings, Congressional Review Act (CRA) resolutions, and entries from the parallel Silencing Science Tracker (co-maintained with the Climate Science Legal Defense Fund), this analysis examines how legal minimalism, procedural exclusion, and economic discounting have been deployed to advance "energy dominance" -- and quantifies the resulting gigatons of carbon dioxide and methane added to the global carbon budget.[4][6][30]

Stationary and Mobile Sources: The Power Grid and SAFE Vehicles

Stationary power generation and transportation represent the two largest contributors to domestic greenhouse gas emissions and the primary battlegrounds of Clean Air Act interpretation.[1] In the stationary power sector, the first Trump administration repealed the 2015 Clean Power Plan (CPP) -- which interpreted Clean Air Act Section 111(d) to permit system-wide "generation shifting" from coal to natural gas and renewables -- and replaced it with the Affordable Clean Energy (ACE) rule.[7] By restricting the "best system of emission reduction" (BSER) strictly to "inside the fence-line" heat-rate efficiency upgrades at individual coal units, the ACE rule reduced projected 2030 power-sector abatement to a fraction of a percent below baseline.[7][8]

| Regulatory Dimension | | Clean Power Plan (CPP, 2015) | | Affordable Clean Energy (ACE) Rule |

| Statutory Interpretation (CAA 111(d)) | | Grid-wide "generation shifting" (coal to

gas/renewables) | | Source-specific "inside the fence-line" equipment upgrades[7] |

| Best System of Emission Reduction | | Fuel switching, renewable capacity, demand efficiency | | Heat Rate Improvements (HRI) at individual coal boilers[7] |

| New Source Review (NSR) Trigger | | Annual total emissions increase threshold | | Hourly rate threshold (permits higher annual run-hours)[7] |

| Projected CO2 Reduction | | ~32% below 2005 levels by 2030 | | 0.7%-1.5% below baseline (~13-30M short tons in 2025)[8] |

Independent modeling by the Rhodium Group and Resources for the Future demonstrated that improving coal plant thermal efficiency lowers marginal operating costs per megawatt-hour, inducing an economic "rebound effect" whereby coal units are dispatched more frequently and retire later -- locally increasing cumulative emissions -- particularly when paired with proposed New Source Review (NSR) amendments shifting pollution triggers from annual to hourly emission rates.[7][9]

In the transportation sector, the administration replaced the Obama-era Corporate Average Fuel Economy (CAFE) trajectory (~5% annual stringency increases toward >50 mpg by 2025) with the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule, freezing standards near 2020 levels before permitting a 1.5% annual increase.[10][11] While the Council of Economic Advisers justified the rollback via vehicle-scrappage safety models, academic economists documented fundamental modeling errors showing that consumer fuel savings far outweighed upfront vehicle technology costs.[10][12][13] Simultaneously, SAFE Rule Part One revoked California's longstanding Clean Air Act waiver (and the authority of Section 177 states) to enforce stricter tailpipe CO2 standards.[14][15] Rhodium Group estimates indicate that the SAFE rollback alone locks in 321 to 931 million metric tons of cumulative additional CO2 emissions between 2022 and 2035.[16]

Methane Rescissions and Public Lands Extraction

Because methane exhibits a 20-year global warming potential (GWP) more than 80 times that of CO2 and drives intense near-term radiative forcing, oil and gas leak abatement is central to near-term climate stabilization. Yet the Sabin Center tracked the 2020 "Policy" and "Technical" amendments to New Source Performance Standards (NSPS Subpart OOOOa), which eliminated direct methane standards for production and processing, removed transmission and storage infrastructure from regulation entirely, relaxed compressor station leak detection and repair (LDAR) inspections from quarterly to semiannual, and exempted low-production marginal wells (<15 barrels of oil equivalent/day).[17][18] Because methane emissions follow a heavy-tailed "super-emitter" distribution largely driven by marginal wells and stochastic valve failures, halving inspection frequency and removing Clean Air Act Section 111(d) triggers for existing wells left tens of millions of metric tons of methane unabated.[18][19]

On federal public lands, the push to maximize fossil fuels culminated in Section 20001 of the Tax Cuts and Jobs Act of 2017, mandating oil and gas lease sales across the Coastal Plain of the Arctic National Wildlife Refuge (ANWR).[4][20] Center for American Progress analyses show that downstream combustion of ANWR reserves could release ~4.3 billion metric tons of CO2e.[21] Moreover, Bureau of Land Management

environmental reviews largely omitted positive feedback loops from physical disturbance and warming of Arctic permafrost, which accelerates active-layer thaw and soil carbon release alongside Endangered Species Act revisions that restricted consideration of future sea ice loss and biodiversity degradation across the Arctic ecosystem.[1][22]

Procedural Blindness and the Second-Term Acceleration

Beyond sectoral rules, the trackers reveal how procedural modifications systematically alter federal risk accounting:

* Eliminating NEPA Cumulative Impacts: CEQ's 2020 NEPA overhaul (and 2025 rescission of NEPA regulations) removed mandates to assess "cumulative" and indirect climate impacts, allowing individual pipelines and highways to be approved as locally de minimis despite their aggregate contribution to the greenhouse effect.[23][24][25]

* Discounting the Social Cost of Carbon (SCC): By restricting SCC damage accounting strictly to domestic borders and raising the discount rate to 7%, regulators compressed the valuation of carbon damages from ~$50/ton to $1-$7/ton, mathematically erasing the monetized benefits of climate rules even under established climate sensitivity parameters.[1][26]

* Excluding Epidemiological Science: The EPA's "Strengthening Transparency in Regulatory Science" rule sought to bar foundational epidemiological cohort studies (such as the Harvard Six Cities study) that rely on confidential patient medical records, artificially lowering air-quality co-benefit calculations.[6]

* Trump 2.0 Acceleration (2025-2026): The Climate Backtracker documents 304 actions in year one of the second term, anchored by Executive Orders declaring a "National Energy Emergency," halting Inflation Reduction Act (IRA) and Infrastructure Investment and Jobs Act (IIJA) disbursements under "Unleashing American Energy," re-withdrawing the United States from the Paris Agreement, restricting federal climate-risk modeling, and deploying interim/direct-final rules to bypass notice-and-comment procedures -- culminating in the EPA's February 12, 2026 final rule (published February 18, 2026, 91 FR 7686) rescinding the 2009 Greenhouse Gas Endangerment Finding and motor-vehicle greenhouse gas standards under Clean Air Act Section 202(a).[2][27][28][31]

| Policy Theater | | Deregulatory Mechanism | | Projected Additional Emissions (MMT CO2e) | | Analytical Source |

| Mobile Sources | | SAFE Vehicles Rule Rollback & Waiver Revocation | | 321 - 931 (Cumulative 2022-2035) | | Rhodium Group[16] |

| Oil & Gas Sector | | NSPS Subpart OOOOa Methane Rescission | | ~58 MMT CH4 (~1,450+ MMT CO2e to 2038) | | EPA / WRI Analysis[19] |

| Public Lands | | ANWR Coastal Plain Leasing Mandate | | ~4,300 (Total lifecycle downstream) | | Center for American Progress[21] |

| Power Grid | | ACE Rule Replacement of Clean Power Plan | | Locks in coal generation; <1.5% reduction vs baseline | | EPA RIA / CRS[8][9] |

| Aggregate Wave 1 | | Combined First-Term Rollbacks (2017-2021) | | ~1,800

(Cumulative to 2035) | | Rhodium Group[29] |

| Aggregate Wave 2 | | Projected Second-Term Rollbacks (2025-2030) | | ~4,000 (Cumulative to 2030; >$900B damages) | | Carbon Brief[30] |

Conclusion: The Cumulative Legacy of the Regulatory Yoyo

The Sabin Center's Climate Deregulation Tracker and Climate Backtracker demonstrate that administrative retrenchment operates through a coordinated triad of statutory narrowing, scientific exclusion, and cost-benefit manipulation. Quantitatively, while first-term rollbacks threatened to add 1.8 gigatons of CO2e by 2035, second-term reversals are projected to inject an additional 4 gigatons of CO2e into the atmosphere by 2030 -- equivalent to the combined annual emissions of the European Union and Japan, imposing over $900 billion in global climate damages and reducing U.S. 2030 abatement to roughly 28% below 2005 levels rather than the 50-52% Paris commitment.[29][30] Because atmospheric greenhouse gas accumulation integrates over centuries, the physical consequences of this regulatory oscillation will endure long after the administrative rules themselves are contested again.

Updates... (Nov 25, 2026): Replaced the broken soft-redirect UC Berkeley CLEE URL in Ref #3 with CLEE's live February 3, 2026 report on federal environmental law under the Trump administration, and updated CRS Report IF12006 publication/revision dates in Ref #20 (Dec 27, 2021; updated Nov 18, 2026). (Earlier Nov 20, 2026 update added the EPA's February 2026 final rule 91 FR 7686 rescinding the 2009 Endangerment Finding and verified remaining reference URLs.)

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