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CLIMATE REGULATION

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Climate Regulation

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MAIN CLIMATE REGULATIONS, POLICIES AND AUTHORITIES

International agreements

Do any international agreements or regulations on climate matters apply in your country?

The United States signed the Paris Agreement in April 2016 and later ratified it, committing, alongside nearly 200 other countries, to limit global warming to 1.5°C above pre-industrial levels. Then, the first Trump administration withdrew from the Paris Agreement, while the subsequent Biden administration re-joined. On 20 January 2025, newly-inaugurated President Trump issued Executive Order (EO) 14162, which directed the US Ambassador to the United Nations to withdraw the United States from the Paris Agreement for a second time. The EO states the withdrawal would be 'effective immediately upon this provision of notification'. Because article 28 of the Paris Agreement states that withdrawal takes effect one year after notification of withdrawal, and the depository notification issued by the UN Secretary General confirmed the withdrawal will take effect on 27 January 2026. The policy whipsaw over the past decade has made the United States an unreliable negotiating partner with respect to international climate agreements and has undermined US efforts to influence global climate policy.

The United States is also a party to the Vienna Convention for the Protection of the Ozone Layer and a protocol to that treaty, the Montreal Protocol on Substances that Deplete the Ozone Layer, since its finalisation in 1987. Under the Montreal Protocol and Title VI of the US Clean Air Act (CAA), some ozone-depleting substances (ODS), such as chlorofluorocarbons, have now been phased out except for a small quantity for uses agreed upon as 'essential'. Hydrochlorofluorocarbons (HCFCs) are currently being phased down through incremental decreases in consumption and production, with a complete phase-out planned by 2030. On 15 October 2016, at the 28th Meeting of the Parties in Kigali, the parties agreed to amend the Montreal Protocol, expanding its scope to include certain hydrofluorocarbons (HFCs). The United States has now adopted the agreement. With a strong bipartisan alliance and support from both environmental groups and industry, the US Senate voted 69–24 to ratify the Kigali Amendment on 21 September 2022.

The US Environmental Protection Agency (EPA) and the Federal Aviation Administration (FAA) traditionally have worked with the International Civil Aviation Organization (ICAO) to establish aircraft emissions standards. The United States participates in the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), to which the United States is committed under Annex 16, Volume IV of the Convention on International Civil Aviation, more commonly known as the Chicago Convention. Under CORSIA, all ICAO member states whose aircraft operators undertake international flights must develop a monitoring, reporting, and verification system for CO2 emissions from international flights subject to CORSIA. CORSIA requires offsetting new emissions (above the baseline year of 2019) from covered international flights beginning in 2024, with the first compliance period running from 2024–2026. In January 2021, EPA finalised GHG emission standards under the CAA, with domestic emissions limits that mirror the ICAO's standards (86 Fed Reg 2,136 (11 January 2021)). EPA explained that aligning domestic standards with international standards would bring 'substantial benefits for future international cooperation' on aircraft emissions, which the agency deemed 'key for achieving worldwide emission reductions' (86 Fed Reg

2,144–45). Following the promulgation of these standards in 2021, the FAA finalised its Airplane Fuel Efficiency Certification Rule in February 2024 (89 Fed Reg 12,634).

While there have been no significant changes to the administration's position on CORSIA, the Trump administration's 12 August 2025 joint statement (issued by the Secretaries of State, Commerce, Energy, and Transportation) expressing strong opposition to the UN-led International Maritime Organization's proposed 'Net-Zero Framework' for reducing greenhouse gas emissions from international shipping raises questions about whether continued US support for CORSIA, another UN-backed climate initiative, also may come under scrutiny.

The United States previously struck a bilateral agreement with China, under which both nations seek to significantly reduce GHG emissions. The United States and China issued the Sunnylands Statement on Enhancing Cooperation to Address the Climate Crisis in November 2023. The US-China relationship, however, is in a constant state of flux and this agreement is subject to ongoing review.

In June 2016, the United States, Mexico and Canada announced a joint goal of achieving 50 per cent 'clean power' generation across all three countries and reducing methane emissions from the oil and gas sector by 40 per cent to 45 per cent by 2025. The three countries also pledged to protect biodiversity in partnership with Indigenous Peoples, meeting the '30 by 30' target adopted at the UN Biodiversity Conference under the Convention on Biological Diversity (CBD) at COP 15. Note, however, that the United States is not a party to the CBD, although it actively participated in the COP 15 discussions. During the extended session of COP 16 held in Rome, Italy, in February 2025, the United States did not send representatives and was not present even in an observer capacity, highlighting ongoing uncertainty in its commitment to active participation in international biodiversity forums.

Law stated - 26 September 2025

International regulations and national regulatory policies

How are the regulatory policies of your country affected by international regulations on climate matters?

In general, US law is not impacted by international climate regulations. The United States lacks a binding, comprehensive policy to regulate GHG emissions at the national level, and recent administrations have taken differing views with respect to the Paris Agreement and other international agreements. Although the United States previously committed to both achieving a 50–52 per cent reduction in GHG emissions by 2030 and reaching net-zero emissions by 2050, the Trump administration has announced that the US will again withdraw from the Paris Agreement in early 2026. In certain instances, such as with respect to HFCs or airline emissions, the US has taken legislative or regulatory action to align domestic standards with international agreements.

One potential exception is with respect to tariffs and trade. The European Union's Carbon Border Adjustment Mechanism (CBAM), which took effect in October 2023, triggered trade discussions between the United States and the European Union. CBAM imposes a fee on certain goods imported into the European Union, based on carbon intensity. In response, the Biden administration requested an exemption for its steel and aluminium exports; going several steps further, one of the Trump administration's major early policy efforts

has been to institute widespread 'reciprocal' tariffs in response to 'unfair trading practices' in other countries, including CBAM. On the other hand, the EU CBAM previously spurred legislative proposals in the United States to create a CBAM or similar regulation under existing frameworks (such as the CAA), although none have been enacted to date.

Law stated - 26 September 2025

Main national regulatory policies

Outline recent government policy on climate matters.

The United States does not have national legislation specifically regulating GHG emissions, but federal agencies have implemented climate policy under other regulatory authority, primarily by promulgating regulations and implementing sector-based actions under the CAA. For example, EPA has promulgated regulations aimed at GHG reductions from various larger sources of GHG emissions, including: motor vehicles and other mobile sources, such as heavy-duty vehicles, aircraft and locomotives; large stationary sources under the Prevention of Significant Deterioration (PSD) and Title 8 operating permit programmes; methane emissions from the oil and gas sector and certain solid waste landfills; high-potency GHGs; and other sectors or emissions sources.

The current Trump administration has taken a deregulatory approach to GHG emissions and is gradually working to eliminate both GHG-focused emission rules and GHG reporting and data collection efforts. These efforts may provide short-term cost savings to certain industries but will hamper long-term efforts to combat climate change and may disadvantage some US industries that compete globally.

On 20 January 2025, President Trump issued EO 14156, declaring a 'national energy emergency' and announcing his intention to increase energy production of certain domestic energy resources – namely, fossil fuels, hydro, geothermal, uranium, biofuels and critical minerals (notably wind, solar and battery storage are omitted) in the United States. Trump further directed agency heads to reduce regulatory barriers to expeditious energy production. Several agencies followed suit. EO 14156 directs agencies to use emergency authorities to expedite permitting processes and waive certain regulatory processes under existing laws. This approach potentially opens up room to advance infrastructure projects more quickly.

Also on 20 January 2025, President Trump issued EO 14154 'Unleashing American Energy', which directed agencies to prioritise energy exploration on federal lands (except for wind leases, which a separate presidential memorandum directed agencies to pause) and to pause several Biden-era policy measures, including revoking two EOs related to environmental justice and the climate crisis.

The Trump administration also has announced its intention to revisit many climate change regulations as part of the Administration's broader deregulatory agenda. The intended actions include reconsidering or revoking a number of existing GHG regulations, such as emissions standards for power plants and motor vehicles, revising the Greenhouse Gas Reporting Program, rolling back industrial emissions regulations and reversing the 2009 GHG Endangerment Finding that determined that emissions of GHGs from certain sources cause or contributes to air pollution that endangers public health and welfare and, as such, are subject to regulation under the CAA. These de-regulatory processes will play out through formal rulemaking processes, which will take months or years for each action. Court

challenges to these actions are a near certainty, which will take further time to resolve in each instance. In some cases, de-regulatory efforts will be hampered by the body of existing science on climate change and related GHG emissions sources, together with prior action by EPA and other agencies to regulate GHG emissions, including existing regulations and related supporting materials.

Law stated - 26 September 2025

Main national legislation

Identify the main national laws and regulations on climate matters.

In the absence of national legislation specifically regulating GHG emissions, climate regulation in the United States has largely been driven by federal agency actions under existing statutory authority – primarily the Clean Air Act (CAA) – and by state-level initiatives. EPA has promulgated regulations aimed at GHG reductions from various larger sources of GHG emissions, including: motor vehicles and other mobile sources, such as heavy-duty vehicles, aircraft and locomotives; large stationary sources under the CAA Prevention of Significant Deterioration (PSD) and Title V operating permit programmes, which began applying to GHGs in 2011; methane emissions from the oil and gas sector and certain solid waste landfills; high-potency GHGs; and other sectors or emissions sources. The Trump administration has announced plans to reconsider many of the emissions rules pertaining to power plants, transportation and the oil and gas sector. Central to this effort is the proposed rescission of EPA's 2009 GHG Endangerment Finding, which serves as the legal foundation for regulating GHG emissions under the CAA. This finding concluded that six greenhouse gases endanger public health and welfare, and that emissions from motor vehicles and engines significantly cause and contribute to this pollution, paving the way for regulation.

The Trump administration has made several efforts to pause and/or reverse the implementation of two major Biden-era laws with important climate change provisions. In November 2021, Congress passed the Infrastructure Investment and Jobs Act (IIJA), a trillion-dollar infrastructure bill that includes numerous provisions aimed at climate change, including additional funding for electric vehicles (EVs) and EV infrastructure, improvements to electricity grids, and other infrastructure improvements aimed at reducing GHG emissions. In addition, a US$340 billion climate and tax package, the Inflation Reduction Act (IRA), was enacted on 16 August 2022 and contains numerous climate change provisions. Among other things, the IRA phased out the existing system of renewable electricity tax credits in favour of a new technology-neutral system for energy project developers. Under this system, the tax credits phase out either at the end of 2032 or when national electricity GHG emissions fall below 20 per cent of the 2022 level, whichever occurs later. Federal tax credits have played an important role in incentivising renewable energy development in the US. However, the new tax credit framework was significantly altered by the One Big Beautiful Bill Act (OBBBA), which was signed into law on 4 July 2025. The OBBBA accelerates the phaseout for incentives for wind and solar facilities, requiring projects to begin construction by 4 July 2026 and be placed in service by the end of 2027 to remain eligible. Following the passage of OBBBA, President Trump released EO 14315 'Ending Market Distorting Subsidies for Unreliable, Foreign Controlled Energy Sources', directing the US Treasury to strengthen the repeal of green energy tax credits to appease legislators unhappy with the fact that the wind and solar incentives survived at all. Despite these rollbacks for wind and solar, the OBBBA

preserved tax credits for other sources, and also retained (with some modification) the section 45Q tax credit for carbon capture and storage (CCS) projects, maintaining incentives for both point-source and direct air capture technologies. On the consumer side, OBBBA eliminated incentives for electric vehicles on 30 September 2025 and residential solar by the end of 2025.

Another feature of the IRA was the creation of the Greenhouse Gas Reduction Fund, a US$27 billion programme. The OBBA repealed funding for the Greenhouse Gas Reduction Fund. President Trump's EO 14154 'Unleashing American Energy' further directed agencies to pause the distribution of certain IIJA and IRA funds pending review. These and other actions have significantly impacted certain sectors of the US economy and may slow investment and innovation in GHG-reducing technologies – at least for the duration of the Trump administration, and possibly longer – creating some risk of global competitive disadvantage for the US clean tech sector.

Law stated - 26 September 2025

National regulatory authorities

Identify the national regulatory authorities responsible for climate regulation and its implementation and administration. Outline their areas of competence.

In the United States, regulatory authority typically is delegated to agencies, which are government entities responsible for implementing laws, developing related regulations and providing public services. Many agencies exist within the federal executive branch and, consequently, the president appoints agency heads and other key officials. Executive branch agencies are often charged with carrying out presidential directives, subject to the limits of what Congress has authorised through the applicable federal laws governing the agency.

EPA is the primary national regulatory authority with responsibility for the regulation of GHG emissions. EPA's authority includes the promulgation and enforcement of CAA standards for GHG emissions for both mobile and stationary sources, GHG reporting programmes, adaptation to a changing climate and protection of drinking water aquifers under the federal Safe Drinking Water Act with respect to underground injection of carbon dioxide and other materials. EPA's authority to regulate greenhouse gases was affirmed in the 2007 Supreme Court decision in ***Massachusetts v EPA***, which held that GHGs are 'air pollutants' under the CAA, giving EPA the authority to regulate GHGs through the CAA. Following this decision, EPA issued its 2009 GHG Endangerment Finding, which determined that (1) six key GHGs endanger public health and welfare and are therefore subject to regulation under the CAA, and (2) the combined emissions of these 'well-mixed' GHGs from new motor vehicles and new motor vehicle engines cause and contribute GHG pollution. The DC Circuit Court of Appeals upheld the 2009 endangerment finding. Following the 2009 endangerment finding rule, EPA finalised GHG emissions standards for motor vehicles and then issued additional GHG regulations for other GHG emissions sources. For over a decade since, EPA has made additional GHG endangerment findings for other emissions sources and issued new GHG emissions standards.

Under the Trump administration, EPA has announced a major deregulatory agenda, including plans to reconsider many of the emissions rules pertaining to power plants, transportation and the oil and gas sectors.

On 29 July 2025, EPA proposed to rescind the 2009 Endangerment Finding. If this proposal is finalised, the agency would also remove GHG regulations for light-, medium- and heavy-duty vehicles and engines due to the resulting lack of statutory authority under the CAA. The proposal cites multiple legal and scientific grounds, including that the CAA does not authorise regulation based on global climate change concerns and that the original finding relied on uncertain climate science. This move could have broader implications for stationary and other mobile source regulations. If finalised, the endangerment finding repeal will be challenged in court, where EPA's odds of success are uncertain. Environmental groups have already filed a lawsuit in August 2025 challenging the process by which the endangerment finding repeal was developed, alleging that the process was driven by a secret 'Climate Working Group'.

The Council on Environmental Quality (CEQ) is a division of the Executive Office of the President charged with ensuring federal agencies comply with the National Environmental Policy Act (NEPA) in assessing the potential environmental impacts of major federal actions. Consideration of climate change impacts in NEPA analyses continues to be primarily guided by court decisions on agency rulemaking processes, land use planning documents, leasing decisions and individual project permitting decisions, most often in the energy or transportation contexts. On 29 May 2025, the US Supreme Court issued a decision in ***Seven County Infrastructure Coalition et al. v Eagle County***, clarifying that NEPA does not require consideration of environmental impacts outside of the immediate scope. This ruling narrows the scope of GHG analysis under NEPA to the specific project at issue. The Bidenaadministration had previously issued interim guidance expanding the scope of GHG analysis under NEPA. On 28 May 2025, the CEQ withdrew this prior interim guidance, stating that it is inconsistent with EO 14154 'Unleashing American Energy', which set forth a deregulatory policy and critiqued social cost of carbonmetrics. Also pursuant to EO 14154, CEQ issued an interim final rule rescinding its NEPA implementing regulations in their entirety. Together, these actions will constrain climate considerations in NEPA reviews, while eliminating government-wide procedural rules for NEPA reviews, leaving each federal agency to rely on NEPA's statutory text and to develop or reform its own agency-specific NEPA procedures and approach to GHG emissions, consistent with ***Seven County Infrastructure Coalition et al. v Eagle County***.

The CEQ also developed Climate and Economic Justice Screening Tool (CEJST), which identified communities in the United States as disadvantaged because they live in areas that experience significant burdens, including ones related to climate change. Several Biden-era programmes relied on CEJST to ensure that federal funding and programs were reaching these communities. As of 22 January 2025, CEJST is no longer available on the White House website. This rollback has prompted legal challenges from environmental and science advocacy groups.

Additional federal agencies are also responsible for programmes and regulations related to climate change, such as the Department of Energy; Department of Agriculture (USDA); Department of the Interior; Department of State; Department of Commerce; and National Aeronautics and Space Administration (NASA). On 5 February 2025, the Department of Energy issued a Secretarial Order in response to President Trump's EOs on energy to

reinforce the department's goal of expanding energy production and reducing energy costs rather than achieving a net-zero carbon future.

Additionally, the Department of the Treasury and the Internal Revenue Service play an increasingly important role due to the proliferation of GHG tax incentives, such as 45Q for carbon sequestration. The Securities and Exchange Commission (SEC) attempted to implement a rule standardising GHG disclosures for investors in March 2024 as part of its emphasis on ESG disclosure and reporting. The rule would have required public companies to provide GHG disclosures, including both risk and emissions disclosures, in their annual reports and registration statements. The rule was challenged and on 27 March 2025, the SEC voted to stop defending the climate disclosure rule in court. This decision reflects a larger policy shift, and the SEC's Acting Chairman explained the purpose was 'to cease the Commission's involvement in the defense of the costly and unnecessarily intrusive climate change disclosure rules.'

Law stated - 26 September 2025

GENERAL NATIONAL CLIMATE MATTERS

National emissions and limits

What are the main sources of emissions of greenhouse gases (GHG) (or other regulated emissions) in your country and the quantities of emissions from those sources? Describe any limitation or reduction obligations. Do they apply to private parties in your country?

The United States does not currently have any national GHG emissions limits, although various programmes impose source-specific or sector-specific limits. EPA has historically regulated emissions from specific sectors, such as power plants. GHG emissions standards apply to private commercial entities to the extent that the entity is subject to regulation by the relevant national or state authority. However, EPA has proposed repealing several landmark power plant emissions rules, including the GHG emissions standards and the Mercury and Air Toxics Standards. These proposals are in the proposal stage and have not yet been finalised.

Law stated - 26 September 2025

National GHG emission projects

Describe any major GHG emission reduction projects implemented or to be implemented in your country. Describe any similar projects in other countries involving the participation of government authorities or private parties from your country.

At the federal level, GHG emission reductions are primarily driven by US CAA regulation, which does not currently contemplate GHG emissions reduction projects or carbon offsets as compliance mechanisms. Certain other programmes provide incentives for carbon sequestration and other GHG removals. EPA has also implemented strategies to help organisations reduce their GHG emissions, including the ENERGY STAR programme and Green Power Partnership, although the future of these – like other GHG-focused

programmes – is uncertain under the Trump administration, which has indicated that it may privatise or eliminate the ENERGY STAR programme. At the state level, GHG emissions reductions are driven by a range of policies, including state and regional cap and trade programmes, renewable power requirements, low carbon fuel programmes, energy efficiency programmes and a range of other sector-specific measures adopted under state law.

Section 45Q of the Tax Code provides tax credits for capturing and sequestering carbon oxides that would otherwise escape to the atmosphere. In 2022, the US Congress expanded 45Q, reducing capacity requirements for eligible projects and increasing payments for permanent carbon dioxide storage and direct air capture projects. In 2025, the One Big Beautiful Bill Act (OBBBA) made several changes to 45Q, including setting a standard credit value to remove the distinction between geological sequestration and other commercial uses like enhanced oil recovery. Additionally, direct air capture projects now receive a reduced credit of US$26/ton (down from US$36/ton), which eliminates the higher price for direct air capture as compared to industrial source capture. The US Department of Agriculture (USDA) has also implemented various programmes to support and incentivise carbon sequestration and production of 'climate-smart commodities' in the agricultural and forestry sectors. However, the Trump administration paused and restructured several USDA funding programmes that focus on energy efficiency and carbon sequestration on working lands, including the Rural Energy for America (REAP) projects and the Partnerships for Climate-Smart Commodities initiative.

Private carbon offset markets also have spurred development of a wide array of carbon sequestration projects and programmes in the forestry and agriculture sectors, among others. This sector is expanding rapidly to meet demand for voluntary carbon reductions and removals, and to meet demand driven by offsetting schemes such as CORSIA.

Law stated - 26 September 2025

DOMESTIC CLIMATE SECTOR

Domestic climate sector

Describe the main commercial aspects of the climate sector in your country, including any related government policies.

Commercial climate business in the United States is fragmented, largely owing to the lack of comprehensive national climate change regulation and the lack of a single registry or exchange for the trading of GHG allowances, offsets and other instruments. Voluntary projects to offset or inset GHG emissions are accelerating, and the generation of GHG offset or reduction credits has increased as entities seek to comply with California's cap-and-trade programme and to fulfil voluntary GHG reduction commitments. A range of voluntary efforts are presently aimed at increasing transparency and quality in the global carbon markets, such as the Integrity Council for the Voluntary Carbon Market. US carbon projects and carbon buyers are reacting with a trend towards higher-quality carbon reduction projects and procurement of high-quality carbon reduction assets.

In October 2023, California enacted the Voluntary Carbon Market Disclosures Act (AB 1305), which imposes disclosure requirements for voluntary carbon transactions and claims based on use of carbon offsets beginning 1 January 2025. AB 1305 imposes new

disclosure requirements on businesses that market, buy or sell voluntary carbon offsets within California, or those that make specified climate-related claims within California (eg, net zero or carbon neutral). Businesses failing to meet these requirements may be subject to substantial civil penalties.

On 28 May 2024, the Biden administration released the Joint Statement of Policy and New Principles for Responsible Participation in Voluntary Carbon Markets (VMMs). The statement announced seven principles aimed at strengthening the integrity, transparency and effectiveness of voluntary carbon markets. These principles are:

- carbon credits and the activities that generate them should meet credible atmospheric integrity and represent real decarbonisation;
- credit-generating activities should avoid environmental and social harm and should, where applicable, support co-benefits and transparent and inclusive benefits sharing;
- corporate buyers that use credits (credit users) should prioritise measurable emissions reductions within their own value chains;
- credit users should publicly disclose the nature of purchased and retired credits;
- public claims by credit users should accurately reflect the climate impact of retired credits and should only rely on credits that meet high integrity standards;
- market participants should contribute to efforts that improve market integrity; and
- policymakers and market participants should facilitate efficient market participation and seek to lower transaction costs.

Law stated - 26 September 2025

GENERAL GHG EMISSIONS REGULATION

Regulation of emissions

Do any obligations for GHG emission limitation, reduction or removal apply to your country and private parties in your country? If so, describe the main obligations.

In April 2023, California obtained two waivers from the Environment Protection Agency (EPA) to establish stricter air quality standards for motor vehicles, specifically heavy-duty vehicles and engine emission standards, under the Clean Air Act (CAA) section 209. EPA is still reviewing a third requested waiver as at the time of writing. Historically, California's waivers have allowed the state to set stricter standards for motor vehicle emissions, which other states may then adopt instead of the federal ones. DC, California and 14 other states signed a memorandum of understanding in 2020, creating a pathway to zero-emission vehicles by 2050 within these states. These most recent California waivers have experienced some pushback: in June 2023, 19 Republican-led states challenged EPA's waiver grant to California's Advanced Clean Trucks Rule; that challenge remains pending in court as at the time of writing. However, in April 2024, a court upheld EPA's waiver allowing California to set its own GHG emissions standard for passenger vehicles and run a zero-emission vehicles programme.

The Biden administration's 'whole-of-government' approach to climate change is having an enormous impact on US GHG policy, as is the Administration's goal of net-zero GHG emissions for the United States by 2050. Individual states are also driving significant changes in US climate policy. At present, 20 states have binding net-zero GHG emissions targets (typically by 2045 or 2050) and another four have similar non-binding targets. Several other states have binding GHG emissions reduction requirements in the 80–95 per cent range. Collectively, these state and federal policy pronouncements are creating significant changes in both voluntary and mandatory GHG reduction and regulation programmes around the country across numerous sectors.

Law stated - 26 September 2025

GHG emission permits or approvals

Are there any requirements for obtaining GHG emission permits or approvals? If so, describe the main requirements.

Certain stationary sources are required to obtain CAA Title V operating permits and prevention of significant deterioration (PSD) permits for GHG emissions. Under the CAA's 'cooperative federalism' approach, most states manage GHG permitting in conjunction with any applicable state laws or programmes. When obtaining permits under the PSD programme, sources must evaluate available emissions reduction options to determine the 'best available control technology' for that facility, which are made on a case-by-case basis considering energy, environmental and economic impacts, and other costs. Over time, technological advancements increase the degree of attainable emissions reductions. The Clean Air Act also contains provisions governing New Source Performance Standards (NSPS) for various sectors, and EPA has adopted NSPS rules targeting GHG emissions from the electricity and oil and gas sectors. Typically, under the Clean Air Act, any applicable PSD or NSPS GHG emissions limits will be incorporated into a facility's Title V operating permit. GHG considerations also become relevant in certain permitting actions, including those under National Environmental Policy Act and analogous state laws, which may require permit applicants to take into account GHG emissions related to a specific project.

Several market-based permit systems also exist: California and Washington now have state-level cap-and-trade programmes requiring major emitters to obtain permits to release GHGs, and 11 states participating in the RGGI have a cap-and-trade programme covering the electricity sector. New York and Oregon also are developing cap-and-trade programmes.

Law stated - 26 September 2025

Oversight of GHG emissions

How are GHG emissions monitored, reported and verified?

EPA's mandatory GHG Reporting Rule requires reporting of GHG data and other relevant information for facilities in 41 source categories. EPA compiles reported GHG emissions to create its annual GHG inventory for the United States. Compliance for covered sources is mandatory and administrative. Civil or criminal penalties may apply for violations. Several states have also implemented GHG reporting rules, and the reporting thresholds differ by

state. Entities must comply with both federal and state GHG reporting requirements, if applicable. According to EPA, the GHG Reporting Rule covers over 8,000 US facilities.

In 2010, the SEC issued interpretive guidance regarding required disclosures by companies of their climate change-related risks. On 4 March 2021, the SEC announced the creation of a Climate and ESG Task Force within the Division of Enforcement. In May 2022, the SEC proposed new disclosure and reporting requirements for public companies that would significantly expand current climate risk reporting requirements while also imposing new requirements related to GHG and ESG disclosures. The most controversial aspects of the proposed rule were the requirements of Scope 3 emissions disclosure (disclosure about a company's value chain emissions) and the financial statement disclosures. In March 2024, the SEC finalised a GHG disclosure rule with several key differences from the proposed rule. Importantly, companies will not have to disclose Scope 3 emissions. The rule nonetheless imposes detailed and significant new disclosure obligations on corporate registrants to be phased in from fiscal year 2025 up to 2033. Key requirements include disclosing:

- material climate-related risks, the impacts of such risks and risk management;
- certain information about oversight of climate-related risks;
- information on any climate-related targets or goals that are material to the registrant's business, results of operations or financial condition; and
- material GHG emissions data for Scope 1 and Scope 2 emissions.

The rule also contains additional and specific financial statement disclosure requirements.

The rule was subject to numerous challenges, which are now consolidated in the US Court of Appeals for the Eighth Circuit. Pending resolution of the challenge, the SEC has stayed the rule.

Environmental groups, investors and shareholders also are increasingly driving changes to climate risk reporting by companies in the United States. Companies may now face dozens or even hundreds of requests for data and information on how they assess and disclose climate-related risks, and there has been increased adoption of third-party disclosure standards, including those published by the Task Force for Climate-Related Financial Disclosures and the Sustainability Accounting Standards Board.

The US Federal Trade Commission (FTC) appears poised to significantly refresh its guidelines for the Use of Environmental Marketing Claims (Green Guides). On 2 July 2021, the FTC published its 10-year regulatory review schedule, announcing an agency review of the Green Guides in 2022. The FTC then published a proposed rule revising the Green Guides on 20 December 2022, which is scheduled to be released sometime in 2024. This action is in line with the global trend toward more scrutiny of claims and substantiation, including actions within the European Union requiring enhanced substantiation for environmental claims.

At the state level, California recently adopted two GHG disclosure laws, requiring companies to disclose climate-related financial risks and GHG emissions from 2026 onwards. Under the first law, SB 253, or the Climate Corporate Data Accountability Act, companies doing business in California with total global annual revenues over US$1 billion dollars must disclose Scope 1 and Scope 2 GHG emissions for the entity's prior fiscal year. Beginning in 2027, and annually thereafter, companies must publicly disclose Scope 3 GHG emissions no later than 180 days after it discloses its Scope 1 and Scope 2 emissions for the prior fiscal year. Under the second law, SB 261, focused on 'Greenhouse gases: climate-related

financial risk', companies doing business in California with a total global annual revenue of over US$500 million must disclose (1) the business' climate-related financial risk, in accordance with the recommended framework and disclosures contained in the Final Report of Recommendations of the Task Force on Climate-Related Financial Disclosures (June 2017) or any subsequent publication, and (2) the measures taken to reduce and adapt to the disclosed climate-related financial risks. These laws are not restricted to publicly traded companies and will impact many US and international companies doing business in California.

Law stated - 26 September 2025

GHG EMISSION ALLOWANCES (OR SIMILAR EMISSION INSTRUMENTS)

Regime

Is there a GHG emission allowance regime (or similar regime) in your country? How does it operate?

There is no mandatory GHG allowance regime at the federal level, although Several market-based permit systems exist at the state level.

Regional Greenhouse Gas Initiative (RGGI), the first market-based GHG reduction scheme in the United States, currently encompasses the eastern states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island and Vermont. Each member state commits to implementing their own state regulations to set GHG emissions caps for power plants based on model rules developed by RGGI. RGGI lowered its GHG emissions cap beginning in 2014 to 91 million short tonnes, with annual follow-on decreases of 2.5 per cent from 2015 to 2020. In 2017, RGGI members set a target of further reducing GHG emissions 30 per cent by 2030, and on 3 July 2025, RGGI set new emissions reductions goals through 2037, with a more aggressive goal of dropping emissions 10.5 per cent annually between from 2027 to 2033, with a more gradual decline from 2033 through 2037. Membership in RGGI is voluntary and subject to change. Virginia is a former member, and North Carolina has also considered joining, but was blocked by state legislation that prohibited participation.

RGGI is limited to the power sector and uses an allowance system for compliance; electric power generators subject to RGGI are required to hold carbon dioxide allowances equal to the amount of carbon dioxide they emit in a given compliance year. Each RGGI state issues allowances in an amount defined by each state's applicable law or regulation implementing RGGI. Collectively, these allowances comprise the annual RGGI cap and are distributed through quarterly auctions. RGGI also utilises a cost containment reserve system to allocate and auction additional allowances when needed to limit price volatility that, combined with periodic over-supply, has kept prices low but has also frustrated efforts to create a market for carbon offsets in RGGI states. An Emissions Containment Reserve, which allows states to withhold allowances from auction if reduction costs are lower than projected, allows a more dynamic response to market conditions and may have the effect of stabilising or raising slightly the cost of RGGI allowances if triggered. RGGI recently completed its Third Program Review, during which the member states consider impacts and potential changes to their carbon dioxide budget trading programmes. In addition to setting annual emissions caps through 2037, the 2025 Model Rule also proposes structural changes to the programme

including a revised Cost Containment Reserve structure to prevent cost volatility, a higher Minimum Reserve Price at which allowances may be sold at auction, and the removal of offset allowances as an alternative way to comply with RGGI requirements. California's Global Warming Solutions Act (AB 32), signed into law on 24 September 2006, established a mandate to reduce GHG emissions to 1990 levels by 2020 and granted broad authority to the California Air Resources Board (CARB) to develop and implement a broad strategy to achieve that goal. The California cap-and-trade programme sets a declining cap on greenhouse gas emissions from major polluters and distributes compliance instruments via free allocation and quarterly auctions. In 2025, California passed legislation that extended the programme through 2045 and required certain rebates of credit auction revenue, converting to a hybrid 'cap-and-invest' model. Previously, the programme had a GHG reduction target of 40 per cent below 1990 levels by 2030. In 2022, California again revised that target to an 85 per cent reduction in anthropogenic GHG emissions, and achieving carbon neutrality. The 2025 legislation and extension introduces changes to the distribution of free allowances, mandates a review of carbon offset rules, and commits billions annually to climate-related investments – including high-speed rail, affordable housing and community air protection. These updates align with California's broader climate goal of fully decarbonising its economy by 2045, achieving net-zero greenhouse gas emissions and eliminating fossil fuel use. Under the extension, offset use is limited (from 2026 to 2045) to six percent of total compliance obligations, with no more than half coming from 'projects that do not provide direct environmental benefits' to California. The programme is linked with Quebec's cap-and-trade programme and may expand to include linkage with Washington and possibly Oregon.

California Air Resources Board (CARB)'s strategy to achieve emission reduction goals of the California programme is set forth in its Scoping Plan and includes programmes in nearly every sector of the economy. CARB's most recent Scoping Plan, updated in 2022, outlines a concrete plan for the state to achieve carbon neutrality by 2045. The Plan builds on the 2014 update and identifies the emissions reductions needed in the electricity, transportation, industrial and building sectors. The 2022 update went beyond the 2014 plan to detail strategies for reductions in short-lived climate pollutants and to promote carbon dioxide removal. CARB will update the Scoping Plan following the passage of recent extension legislation to implement changes to the programme and set new targets through 2045.

Under the California cap-and-trade programme, CARB sets an annual cap on GHGs and issues a limited number of emission allowances, each of which authorises its holder to emit one MtCO2e. The number of available allowances is limited by the cap and declines by approximately 3 per cent each year. Entities that emit 25,000 MtCO2e annually are obliged to surrender compliance instruments to CARB equal to their reported emissions. Compliance instruments consist primarily of allowances, which CARB provides free allowances to covered entities in proportion to efficiency and other benchmarks set by CARB. Allowances can also be purchased from CARB at quarterly auctions. Both allowances and offsets may also be bought and sold on the secondary market, subject to certain restrictions. Covered entities are required to disclose substantial information to CARB, including information about corporate ownership and affiliates, directors and officers, high-level employees and legal and market-strategy advisers.

Washington's cap-and-invest programme launched in 2023, creating a declining state-wide cap on GHG emissions and a limited trading system for compliance instruments. Washington's cap-and-invest programme, modeled after California's, shares a similar structure but differs in maturity and market conditions. The programme aims to reduce

emissions to 95 per cent below 1990 levels by 2050, with a declining allowance system and recent auction prices significantly higher than California's. As of January 2023, all sources emitting more than 25,000 MtCO2e are subject to the cap and are required to purchase credits (ie, allowances) sufficient to meet their emissions. Allowances decline over time until a 95 per cent reduction in GHGs over 1990 emissions levels is achieved in 2050. The Washington Department of Ecology holds quarterly allowance auctions, with revenues dedicated to programmes for the reduction of carbon emissions, climate resiliency, support of renewable energy and reduction of GHGs in agriculture. In 2024, Washington passed Senate Bill 6058, which introduced key changes to facilitate linkage with California and Quebec's carbon market. A linkage agreement is anticipated for 2026, and full linkage could be achieved later that year or in 2027.

In 2023, New York Governor Kathy Hochul also proposed a cap-and-invest programme to reduce GHG emissions. The programme, if adopted, would establish a declining cap on GHG emissions while investing in programmes that drive emissions reductions in an equitable manner and limit costs to vulnerable households. The programme would set an annual cap on New York pollution emissions, aiming to meet a 40 per cent emission decrease by 2030 and at least 85 per cent reduction from 1990 levels by 2050. The adoption of the cap-and-invest programme has been delayed and New York State has not yet proposed regulations to implement it. Governor Hochul also proposed legislation to create a Climate Action Rebate which, if adopted, is expected to drive over US$1 billion in future cap-and-invest proceeds to New Yorkers.

Oregon's cap-and-trade programme under the Climate Protection Program (CPP), originally launched in 2022, was reinstated in November 2024. In December 2023, the Oregon Court of Appeals ruled that the previous version of the CPP was invalid because Oregon's Environmental Quality Commission's (EQC) rulemaking process did not comply with disclosure requirements under state law. The CPP imposes a cap on GHG emissions which will be lowered over time, aiming to reduce GHG emissions by at least 90 percent from 2017–2019 levels by 2050. The CPP applies to covered fuel suppliers (fuel suppliers, in-state producers and local distribution companies), direct natural gas (DNG) sources that emit 15,000MT CO2e or more, and emission-intensive trade-exposed stationary (EITE) sources emitting 15,000 MT CO2e or more. EITE and DNG sources are exempt from the first compliance period (2025–2027). The present CPP, unlike the previous version, no longer implements the 'best available emission reduction approach' that applied to certain large stationary sources – all emissions under the CPP are regulated under the cap. President Trump has issued EO 14260 'Protecting American Energy from State Overreach', directing agency heads to take 'all appropriate action' to 'stop the enforcement' of state laws that burden the energy sector. The EO specifically mentions California's cap and trade programme and Vermont's 'climate superfund' laws as examples of policies that 'should not stand'. To-date, the Trump administration has challenged two climate superfund laws (Vermont and New York) and is likely to bring further challenges to state climate change laws and programmes.

This could lead to prolonged legal battles that take years to resolve, creating some degree of uncertainty for state programmes.

Law stated - 26 September 2025

Registration

Are there any GHG emission allowance registries in your country? How are they administered?

There is no GHG allowance regime at the federal level. The registry for RGGI allowances is called the 'CO2 Allowance Tracking System'. Each RGGI allowance has a unique serial number, which then tracks initial ownership, transfer and retirement of allowances. California and other linked jurisdictions utilise the Compliance Instrument Tracking System Service (CITSS) as an allowance registry, which tracks the issuance, initial ownership, transfer and retirement of allowances and offsets within the Western Climate Initiative (WCI), which encompasses the CA programme. WCI conducts financial audit reports and RGGI periodically assesses the presence of any anticompetitive effects. New York and Oregon may develop similar regimes as well.

Law stated - 26 September 2025

Obtaining, possessing and using GHG emission allowances

What are the requirements for obtaining GHG emission allowances? How are allowances held, cancelled, surrendered and transferred? Can rights in favour of third parties (eg, a pledge) be created on allowances?

There is no GHG allowance regime administered by the federal government.

California (and its CITSS platform) and RGGI each maintain rules and systems for the issuance, auction, trading, banking, transfer and retirement of emissions allowances. Any qualified party can participate in RGGI allowance auctions; auction rules limit the number of allowances that associated entities may purchase in a single auction to 25 per cent of the total allowances offered for auction. California conducts quarterly auctions of GHG emission allowances. Both entities that are covered by California's cap-and-trade programme, and others opting into the programme, can participate in the auctions. Washington will follow a model similar to California's. While some CA allowances are allocated to entities to prevent leakage, most are auctioned.

Most recently, RGGI allowances sold for US$22.25 as of September 2025 and CA allowances sold for US$25.87 as of June 2025. In general, market participants must hold instrument trading accounts and be eligible to purchase and hold such instruments. Holding caps may also apply. Compliance entities must surrender or retire a volume of instruments equal to their covered GHG emissions each reporting period; retirement is facilitated through the relevant registry system.

Law stated - 26 September 2025

TRADING OF GHG EMISSION ALLOWANCES (OR SIMILAR EMISSION INSTRUMENTS)

Emission allowances trading

What GHG emission trading systems or schemes are applied in your country?

There is no national GHG allowance regime or national-level emission trading system. Concerning voluntary markets, there is no consolidated registry or trading system. Each allowance issuer or registry maintains its own trading platform and, as a result, the market is fragmented. Most transactions occur as over-the-counter bilateral transactions or through brokers. Each registry or issuer has its own rules concerning trading, banking and retirement; but, in general, voluntary carbon offsets may be freely transacted, pledged or securitised. The Commodity Futures Trading Commission (CFTC) regulates carbon offsets as environmental commodities, and certain transactions may be subject to CFTC rules, including financially settled derivative transactions, swaps, certain options contracts and others. Market participants also may be subject to CFTC registration and reporting requirements, including Commodity Trading Advisors (CTAs), Introducing Brokers (IBs) and others. The CFTC issued guidance on its treatment of certain environmental commodity transactions in 2024, but that guidance was withdrawn in 2025 by the Trump administration.

Law stated - 26 September 2025

Trading agreements

Are any standard agreements on GHG emissions trading used in your country? If so, describe their main features and provisions.

There are no standard agreements on GHG emissions trading in the United States, although a variety of common terms are found in most emissions reduction purchase agreements and similar agreements used to facilitate such transactions. These provisions generally mirror global standards and cover instrument type and vintage, pricing and delivery requirements, reversal risk, ownership of environmental attributes, applicable standards, liquidated damages and other provisions.

Increasingly, large companies or those building portfolios of GHG instruments are developing their own procurement criteria and contracts for carbon assets. These criteria may specify compliance with certain independent registry or standard-setting bodies, such as the Integrity Council for the Voluntary Carbon Market; contracting criteria also may specify replacement requirements for reversals or failure to deliver, with insurance products increasingly an option for certain types of transactions.

Law stated - 26 September 2025

SECTORAL REGULATION

Energy sector

Give details of (non-renewable) energy production and consumption in your country. Describe any regulations on GHG emissions. Describe any obligations on the state and private persons for minimising energy consumption and improving energy efficiency. Describe the main features of any scheme for registration of energy savings and for trade of related accounting units or credits.

The United States is the world's largest producer of oil and natural gas and is likely to remain so given the Trump administration's stance. US crude oil production grew by 270,000

barrels per day to average 13.2 million barrels per day, with most growth coming from the Permian Basin in west Texas and southeastern New Mexico. The US Energy Information Administration predicts that US crude oil production to average 13.4 million barrels per day in 2025 and 2026, with slower growth due to declining oil prices.

In 2024, there were 45.87 trillion cubic feet of gross withdrawals of natural gas in the United States, and the country consumed a record 90.3 billion cubic feet per day of natural gas, up 1 per cent compared to 2023. In 2023, the United States produced 577.9 million short tons of coal, a decrease of 2.7 per cent year over year, and consumed 425.9 million short tons, a decrease of 12.7 per cent year over year. In 2024, the United States produced 676,939 pounds of uranium concentrate, and nuclear power plants generated 781 million megawatt hours of electricity. According to the Environment Protection Agency (EPA)'s 2024 report, total US GHG emissions in 2022 were 6,343 MMtCO2e, representing an increase of 1 per cent from 2021 levels.

When GHGs became a 'regulated pollutant' under the Clean Air Act (CAA) in 2009, EPA undertook various rulemaking processes to incorporate GHG emissions into programmes applicable to stationary sources, which include the Title V operating permit programme and the Prevention of Significant Deterioration programme, as well as New Source Performance Standards (NSPS) for both existing and new electric generating units.

In an early effort to regulate GHG emissions from power plants, in 2015 EPA released two rules: new source performance standards for new power plants and emission guidelines for existing power plants (known as the Clean Power Plan (CPP)). That rule and its first Trump administration replacement, the Affordable Clean Energy Rule (ACE Rule), were the subject of fierce litigation and were eventually scrapped. On 26 April 2024, EPA adopted new final regulations that impose sweeping measures to govern power plant GHG emissions under section 111 of the CAA, and which relied on carbon capture and sequestration to establish GHG emissions limits. In June, 2025, the Trump administration proposed to repeal these standards, or in the alternative to partially repeal them. As such, future GHG emissions regulations for the power sector remain uncertain, at best, and are unlikely within the next several years. In a significant escalation of its rollback of climate regulations, in July 2025, EPA proposed to rescind the 2009 Endangerment Finding, which is the scientific and legal determination that GHGs pose a threat to public health and welfare and are therefore subject to regulation under the CAA. If finalised, this repeal would eliminate the statutory basis for federal vehicle standards, but it could also have implications for other CAA regulations or programmes that regulate GHGs. These potential impacts remain to be tested, depending on how EPA and the courts interpret the change.

In 2016, EPA issued new standards specific to methane emissions from new and modified oil and gas wells and related facilities. In late 2021, the Biden administration took several new actions on methane emissions, as proposing a rule that would reduce methane and other emissions from both new and existing sources in the oil and natural gas industry, as well as releasing a US Methane Emissions Reduction Action Plan. Separately, the 2022 Inflation Reduction Act (IRA) imposes a system of fees aimed at reducing certain methane emissions from pipelines, orphaned wells and other fossil fuel infrastructure. The IRA also required EPA to assess a waste emissions charge for methane from facilities reporting more than 25,000 metric tonnes of carbon per year. However, on 14 March 2025 President Trump approved the rescission of EPA's final rule on methane waste emissions charges after the legislature passed a joint resolution of disapproval; the Trump administration also has paused other methane emissions requirements for the oil and gas sector.

In December 2023, EPA issued a final rule under the CAA that adopts NSPS standards for the oil and gas sector, covering methane and certain other emissions from upstream, midstream and downstream operations. These rules target emissions from new and modified sources, and also include emissions guidelines to assist states in developing rules to govern existing sources. On 28 July 2025, the US EPA issued an interim final rule to extend several compliance deadlines in the 2024 New Source Performance Standards (NSPS) and Emissions Guidelines for oil and natural gas operations. The rule remains in effect throughout pending legal challenges.

The Department of Energy (DOE) runs the Federal Energy Management Program, which focuses on reducing energy consumption and increasing the proportion of renewable energy utilised at federal agencies. The DOE also runs a 'Better Buildings' programme, intending to increase building energy efficiency by 20 per cent over the next decade across the commercial, public, industrial and residential sectors. Through these and other programmes, the federal government has historically created incentives and supported energy efficiency and related technologies to reach net-zero emissions by 2050.

California, Oregon and Washington have all enacted Low-Carbon Fuel Standards requiring significant reductions in the carbon intensity of transportation fuels, joining with British Columbia to create a market for low-carbon fuels covering the entire West Coast. California's programme requires a 30 per cent reduction in the carbon intensity of motor fuels by 2030 and a 90 per cent reduction by 2045, which refiners can achieve either by blending biofuels with gasoline or diesel, or by purchasing credits, which can be generated by, for example, selling low carbon fuels, including electricity used to charge vehicles. The other states have adopted similar mandates. As of July 2024, New Mexico has become the fourth US state to adopt a similar clean fuel standard. Clean fuel standards have been considered by at least eight other state legislatures, without success as of the time of writing.

Law stated - 26 September 2025

Other sectors

Describe, in general terms, any regulation on GHG emissions in connection with other sectors.

In 2009, EPA determined that the six primary GHGs recognised by the UN reasonably may endanger public health and welfare. Concurrently, EPA determined that GHG emissions from motor vehicles contribute to pollution that endangers public health and welfare. Since then, EPA has worked to implement GHG reductions from on-road vehicles through fuel efficiency and certain vehicle efficiency requirements. However, the Trump administration recently proposed to scrap the 2009 Endangerment Finding, which would affect all GHG emissions regulations under the CAA, including those for motor vehicles.

In September 2011, in coordination with the National Highway Traffic Safety Administration (NHTSA), EPA established fuel economy standards for light-duty cars and trucks and the first phase for medium and heavy-duty trucks. Under the Obama administration, NHTSA proposed aggressive Corporate Average Fuel Economy (CAFE) standards for cars and light trucks for model years 2022–2025. These were rolled back by the first Trump administration but were re-established by the Biden administration in March 2022. The CAFE standards for model years 2024–2026 require fuel economy of 49 mpg by model year 2026. Under

appending proposal released by the NHTSA in July 2023, the CAFE standard would increase to 58 mpg in 2032; the proposal also would require a 10 per cent annual fuel economy improvement for certain commercial vehicles (those between 8,500 and 14,001 pounds) for model years 2030–2035. Under the second Trump administration, the NHTSA developed a new interpretive rule aimed at reversing the prior Administration's CAFÉ standards. The rule is currently under review.

While EPA generally has nationwide authority to set emission standards for motor vehicles, the CAA grants California the special ability to set its standards, which may be followed by other states, so long as California receives a waiver from EPA. California Governor Gavin Newsom declared in a September 2020 Executive Order that all new consumer car sales in California must be zero-emission vehicles by 2035, and all new medium-duty and heavy-duty trucks and buses must be zero-emission by 2045. Many other states have adopted CAA emissions requirements for vehicles, and a few have also announced similar zero-emissions policies. However, recent California waivers have experienced pushback: on 12 June 2025, President Trump signed three Congressional resolutions rescinding EPA's approval of Advanced Clean Cars II, Advanced Clean Trucks and Omnibus Low NOx programmes pursuant to the Congressional Review Act. California, joined by 10 other states, promptly filed suit to challenge the Congressional resolutions.

On 15 August 2016, EPA promulgated an endangerment finding under section 231(a)(2)(A) of the CAA for aircraft, which determined that GHG emissions from certain classes of aircraft engines, including those used by most large commercial aircraft, contribute to the air pollution that causes climate change and endangers public health and welfare. According to EPA, GHG emissions from aircraft represent 12 per cent of transport-related GHG emissions in the United States, and 3 per cent of total US GHG emissions. In March 2019, the Federal Aviation Administration (FA) announced its Monitoring, Reporting, and Verification Program for CORSIA. Applying to US air carriers and commercial and general aviation operators, the FAA's programme consists of voluntary carbon emissions reporting to establish standardised practices to implement CORSIA. On 11 January 2021, EPA finalised the first domestic GHG emission standards for aircraft. See ***Final Rule, Control of Air Pollution from Airplanes and Airplane Engines: GHG Emission Standards and Test Procedures***, 86 Fed Reg 2136. These CAA standards would apply to manufacturers of new aircraft and new aircraft engines, with compliance determined as part of the FAA's airworthiness certification process. The standards rely largely on fuel efficiency and draw heavily from the 2017 Airplane CO2 Emission Standards established by the International Civil Aviation Organization (ICAO). EPA explained that aligning domestic standards with international standards would bring 'substantial benefits for future international cooperation' on aircraft emissions, which the agency deemed 'key for achieving worldwide emission reductions' (id at 2,144–45). In November 2021, the FAA also published the US Aviation Climate Action Plan, which outlines strategies for moving the domestic aviation industry towards net-zero emissions by 2050, and released an updated 2024 Aviation Climate Action Plan in December 2024. The plan relies on more efficient aircraft and engine technologies, production and use of sustainable aviation fuels, advancements in airport operations, international cooperation and support for climate science research. At the same time, the plan notes that 'the decarbonisation of the aviation sector is extremely challenging'.

The US has no national GHG regulations for the ships, and the Trump administration currently is opposing efforts by the International Maritime Organization to establish such standards under MARPOL.

Law stated - 26 September 2025

RENEWABLE ENERGY AND CARBON CAPTURE

Renewable energy consumption, policy and general regulation

Give details of the production and consumption of renewable energy in your country. What is the policy on renewable energy? Describe any obligations on the state and private parties for renewable energy production or use. Describe the main provisions of any scheme for registration of renewable energy production and use and for trade of related accounting units or credits.

The Energy Policy Act of 1992 was enacted to address many aspects of energy supply and demand, including alternative fuels, renewable energy and energy efficiency. Significant amendments in 2005 further created or bolstered federal incentives for energy efficiency, biofuels and numerous types of renewable energy. Historically, the US Congress has regularly extended tax credits for wind and solar energy production, while adopting new tax incentives for carbon sequestration. The Biden-era Inflation Reduction Act provided new tax credits that were intended to phase out either at the end of 2032 or when national electricity GHG emissions fall below 20 percent of the 2022 level, whichever occurs later; however, legislation passed on 4 July 2025 (the One Big Beautiful Bill Act or OBBBA) accelerates the phaseout for these incentives for solar and wind projects, requiring construction to begin by July 2026 and the facility to be in service by the end of 2027 to be eligible for the credit. On the consumer side, OBBBA rolls back major IRA clean-energy tax credits and accelerates phase-outs, including eliminating incentives for electric vehicles by 30 September 2025 and residential solar by the end of 2025.

After OBBBA passed, President Trump released Executive Order (EO) 14315, 'Ending Market Distorting Subsidies for Unreliable, Foreign Controlled Energy Sources', directing the US Treasury to strengthen the repeal of green energy tax credits, particularly those related to wind and solar. Following EO 14315, the Interior Department imposed new layers of oversight on wind and solar projects. Any action related to these projects must now pass through multiple internal reviews – including the Executive Secretariat and the Deputy Secretary's office – before receiving the Secretary's personal sign-off. The Interior Department also issued directives to eliminate any 'preferential treatment' for wind and solar in its policies (Secretarial Order 3437) and to evaluate projects based on 'capacity density', emphasising that wind and solar use far more land than other energy sources such as nuclear, gas and coal (Secretarial Order 3438).

The Federal Energy Regulatory Commission (FERC) has focused on expanding transmission and other infrastructure to support renewable energy development across the United States. In 2023, FERC issued a landmark final rule, Order No. 2023, to reform procedures and agreements that electric transmission providers use to integrate new generating facilities into the electric grid. In 2024, FERC released Order 1920, which required each of the transmission planning regions in the United States to undertake long-term transmission planning.

Additionally, the Department of Energy (DOE) loan guarantee programme backs investment in renewable power, energy efficiency and commercial climate technologies. Loans backed

by the DOE have supported investment in solar, wind, geothermal, nuclear and energy storage technologies, among others. In 2013, the DOE announced the availability of US$8 billion in loan guarantees for advanced energy projects that substantially reduce GHGs and other air pollution. In 2014, the DOE announced the availability of US$4.5 billion in loan guarantees available for innovative renewable energy and energy efficiency projects in the United States that reduce GHG emissions. In 2021, DOE announced it had more than US$40 billion in loan guarantee capacity available to support clean energy projects. In 2022, it announced its first loan guarantee of US$504 million for advanced Clean Energy Storage in nearly a decade. The IRA also expanded DOE's Title 17 Clean Energy Financing Program to include facility decarbonisation and energy infrastructure reinvestment projects. The DOE runs parallel loan programmes for nuclear energy projects and 'advanced fossil energy' projects, each with its own solicitations and funding caps. As of 2023, DOE's Loan Programs Office had US$412 billion in estimated remaining loan capacity due to the IIJA and IRA. However, the OBBBA repealed or reduced several IRA-created or expanded loan authorities and unobligated funds, including for the Title 17 loan guarantee programme as well as programmes focused on transmission deployment and siting. It also revised statutory eligibility criteria by eliminating greenhouse gas reduction as a qualifying objective and instead prioritising projects that increase capacity or output, enhance grid reliability or address other system adequacy needs.

A number of states have binding requirements to shift to 100 per cent renewable or non-emitting sources in the electricity sector by mid-century. These include California, Connecticut, Delaware, Illinois, Hawaii, Oregon, Washington, Colorado, Nevada, New Mexico, North Carolina, Maine, Massachusetts, Maryland, Michigan, Minnesota, Rhode Island, Virginia, Vermont and New York, as well as the District of Columbia and Puerto Rico. Several other states have regulatory or executive orders in place requiring the same goal, including Wisconsin, Louisiana, New Jersey and Arizona.

Approximately 36 states, plus the District of Columbia, have enacted binding renewable portfolio standards (RPS). Several other states have non-binding RPS programmes or renewable energy goals. State RPS programmes operate by setting renewable energy targets for each year and requiring electric utility companies to achieve that level of renewable power. As a result, RPS programmes are the primary drivers for renewable energy investment in the United States and are spurring significant investment in renewable energy infrastructure in many states. RPS compliance is usually managed through a system of tradeable renewable energy credits (RECs), with one REC representing one MWh of renewable power. In general, RECs are registered by state agencies and are tradeable instruments.

In addition to mandatory RPS programmes, 'green power' programmes allow US energy consumers (including residential, commercial and industrial users) to purchase renewable or 'green' power from their utility company or independent power supplier. Both energy suppliers and businesses looking to offset energy consumption purchase RECs on the voluntary market to meet green power targets and demand. Voluntary REC supply is dominated by wind, though solar is increasing its market share. At least 50 per cent of retail customers in the United States now have an option to purchase 'green' or low-carbon power from their utility. Net metering programmes allow grid-connected customers with renewable energy systems installed on their property to offset their electrical usage and sell excess electricity to their utility. Several states have also implemented feed-in-tariff programmes that provide a higher price to consumers generating certain types of renewable energy. These programmes have aided the expansion of residential and commercial solar projects in the United States, but net metering programmes are not universal across the United States. Net metering

programmes have also recently come under attack for shifting the costs of maintaining the grid onto customers without the resources to invest in their own renewable energy resources, leading states like California to reduce the value of solar energy net metering credits.

Law stated - 26 September 2025

Wind energy

Describe, in general terms, any regulation of wind energy.

Wind energy projects are subject to a range of federal, state and local environmental, land use, and natural resources laws and regulations. A project may require multiple permits, along with consultation and coordination between multiple agencies. Access to transmission also remains a significant constraint for many wind projects since wind energy resources in the United States are not always located near demand. Developing new or expanded transmission lines can increase the complexity of the above regulatory requirements. For projects located on federal land and tribal, federal land management agencies act as the primary permitting authority. For projects on private or state land, permitting authority is vested in one or more state agencies in some states. In others, the primary permitting authority for a wind facility is the local planning commission, zoning board, city council or county board.

The federal government also has a programme for leasing federal lands on the outer continental shelf for offshore wind development, as well as onshore leasing of federal lands for wind, solar and other energy development. In the past, the Department of the Interior and the Bureau of Land Management have worked to streamline leasing and permitting for renewable energy projects on federal lands. However, on 20 January 2025, the Trump administration issued a presidential memorandum, 'Temporary Withdrawal of All Areas on the Outer Continental Shelf from Offshore Wind Leasing and Review of the Federal Government's Leasing and Permitting Practices for Wind Projects', initiating a pause on leasing and permitting for all wind projects (but exempting leasing for other purposes including oil, gas, minerals and environmental conservation). The pause is in place while agencies conduct a 'comprehensive assessment and review of Federal wind leasing and permitting practices.' Litigation over these actions is pending.

As mentioned above, President Trump's Executive Order 14315 'Ending Market Distorting Subsidies for Unreliable, Foreign Controlled Energy Sources,' underscores the administration's concern that green energy subsidies could pose a national security risk by increasing US dependence on supply chains controlled by foreign adversaries. In a related development, on 13 August 2025, the US Department of Commerce announced a section 232 of the Trade Expansion Act investigation to determine 'the effects on the national security of imports of wind turbines and their components'. The notice for public comment highlights particular interest, without citing specific evidence, in 'the potential for foreign control or exploitation of the wind turbine supply chain' and 'the ability of foreign persons to weaponise the capabilities or attributes of foreign-built wind turbines'.

Wind energy projects have seen litigation over environmental impacts and other issues. Litigation may involve local issues, such as noise, siting and site-specific impacts, or may implicate broader state or national policies. Impacts on birds are a frequent focus of litigation. The Migratory Bird Treaty Act (MBTA), the Endangered Species Act and the Bald

and Golden Eagle Protection Act all protect certain species of birds with civil and criminal penalties. Under the first Trump administration, the Department of the Interior determined in 2017 that the MBTA is inapplicable to incidental injuries or killings of birds, including those caused by wind projects. The Biden administration then withdrew this determination: the Fish and Wildlife Service (FWS) published its final rule revising the MBTA interpretation on 4 October 2021, reinstating its position that 'incidental takes' are prohibited under the MBTA. However, in April 2025, the Department of the Interior reversed course again under the second Trump administration. Acting Solicitor issued a memorandum withdrawing the Biden-era legal opinion and reinstating the 2017 interpretation that the MBTA does not apply to incidental take, except within the jurisdiction of the US District Court for the Southern District of New York, where that interpretation had been vacated.

Law stated - 26 September 2025

Solar energy

Describe, in general terms, any regulation of solar energy.

The US added nearly 50 gigawatts of solar capacity in 2024, an increase of 21 per cent over 2023 in a second record-breaking year. Solar represented 66 per cent of additions to the electric generating capacity in the US, followed by storage and wind, although solar power still generates a relatively small percentage of the total electricity in the US. According to some reports, solar is the lowest cost form of new electricity production when installed at an industrial scale, even in the absence of price supports or subsidies.

Many of the policy changes initiated by the Trump administration may harm the solar industry. The OBBBA eliminates the 30 per cent federal tax credit for residential solar at the end of 2025 as well as phasing out tax credits for clean electricity production and investment tax credits under sections 45Y and 48E by the end of 2027. This will make a major impact on smaller solar installations (homes, businesses) in particular, and will alter the economics of all solar projects. In addition, the Trump administration's proposed tariffs could have an impact on imported solar cells and related equipment. In addition, the Solar for All programme, a US$7 billion initiative under the Greenhouse Gas Reduction Fund created by the 2022 IRA to expand residential solar access for low-income households, was terminated in August 2025.

Many states and the District of Columbia continue to offer incentives, such as upfront rebates, tax credits (including exemptions from property and sales taxes), production-based incentives and solar renewable energy credits. An anticipated increase in the need for end-of-life management of photovoltaic (PV) solar panel waste is driving states such as California to take measures in support of streamlined solutions, including through a new 2020 regulation designating PV waste as 'universal waste', alongside electronics, batteries and other low-risk hazardous waste. A few states are experiencing some pushback as solar expands, due to both transmission issues and high costs to ratepayers. They are in the process of reaching the right balance.

Traditional regulatory approvals and permits are required for solar projects, regardless of scale. Residential solar installations, such as rooftop solar projects, generally do not require major regulatory approvals but are required to meet local and state building, zoning, land use and development regulations – including the acquisition of necessary permits.

Larger commercial and utility-level solar energy projects implicate a much larger array of federal, state and local laws – including those concerning land access, siting, water rights, transmission and environmental review – all of which may be subject to litigation in the process of seeking regulatory approvals.

Law stated - 26 September 2025

Hydropower, geothermal, wave and tidal energy

Describe, in general terms, any regulation of hydropower, geothermal, wave or tidal energy.

FERC issues licences for construction of new hydropower projects. During the permitting process, FERC and the applicant must ensure compliance with NEPA and must obtain a water quality certification from the appropriate state agency under the Clean Water Act (CWA). In recent years, with an eye toward encouraging this emissions-free resource, both Congress and FERC have enacted laws intended to reduce regulatory barriers for small hydropower projects, projects on existing dams and projects in man-made conduits such as irrigation canals. In many cases, permittees also must obtain authorisations under various federal laws, including those protecting wildlife, such as the Endangered Species Act. In some states, additional authorisation may be required for hydropower resources to qualify for RPS or net metering programmes. With climate change as an increasing concern, some states have increased focus on hydropower as a source of energy; in particular, states in the north-east are exploring ways to import more hydropower from Canada and increase capacity and production at existing hydropower facilities. In 2020, EPA finalised a rule revising its regulations for the CWA water quality certification process intended to promote hydropower projects. In November 2023, EPA finalised a new rule aimed at modifying the CWA section 401 Certification Process in response to the Trump administration's changes in 2020. We can expect that the second Trump administration may initiate a rulemaking to revert back to the 2020 changes. In July 2025, EPA announced a notice initiating a series of stakeholder listening sessions and request for public comment on regulatory uncertainty or implementation challenges associated with the CWA section 401 certification process as defined in the 2023 Rule.

Geothermal projects are regulated by a mix of federal and state agencies, with requirements varying by state and whether the project is located on state, tribal, federal or private land. The Geothermal Steam Act of 1970 requires the Department of the Interior to establish rules and regulations for the leasing of geothermal resources on lands managed by federal agencies. These regulations are issued by the Bureau of Land Management. Existing EPA Underground Injection Control Regulations under the federal Safe Drinking Water Act define Class V injection wells to include injection wells associated with the recovery of geothermal energy.

In response to President Trump's executive order declaring a 'National Energy Emergency', the Department of the Interior announced in April 2025 that it will implement emergency permitting procedures to accelerate the development of domestic energy resources including geothermal energy and kinetic hydropower. On tax credit incentives, following the passage of the OBBBA wind and solar now face a tighter schedule to qualify for existing credits, technologies like geothermal, battery storage and hydropower keep full credits through 2033, with a gradual phase-out by 2036.

Law stated - 26 September 2025

Waste-to-energy

Describe, in general terms, any regulation of production of energy based on waste.

Waste-to-energy is defined as a renewable energy source in many states and plants are therefore eligible to sell RECs. At present, the United States has approximately 60 waste-to-energy facilities that combust municipal solid waste. There has been little development of new waste-to-energy plants since the 1980s and the 1990s; the first new waste-to-energy plant since 1995 was built in 2015. As combustion units, waste-to-energy systems are subject to regulatory requirements similar to those regulating fossil fuel-fired power plants, but often significantly more stringent. The CAA imposes numerous requirements on waste-to-energy facilities, which also must comply with the CWA, the Resource Conservation and Recovery Act and other federal, state and local laws. Waste-to-energy facilities and related ash landfills have come under increased legal and regulatory scrutiny in recent years and are at times the subject of lawsuits brought under environmental laws.

Law stated - 26 September 2025

Biofuels and biomass

Describe, in general terms, any regulation of biofuel for transport uses and any regulation of biomass for generation of heat and power.

In 2007, EPA established a national Renewable Fuel Standard (RFS) programme that requires transportation fuel refiners to displace certain amounts of petrol and diesel with renewable fuels such as cellulosic biofuel, biomass-based diesel and advanced biofuel. The programme established the annual renewable fuel standards, responsibilities of refiners and other fuel producers, a trading system, compliance mechanisms and record-keeping and reporting requirements. Companies that refine, import or blend fossil fuels are obligated to meet certain individual RFS quotas based on the volume of fuel they introduce into the market. The production of biofuels is also subject to regulation under the CAA and other environmental laws. EPA adopted a new ethanol rule in 2019, which allows fuel blends containing up to 15 per cent ethanol to be sold year-round in 31 states. In 2025, EPA set the required minimum volume for transportation sector use at 22.33 billion gallons of renewable fuel in 2023 (up from 20.63 in 2022), 21.54 billion gallons in 2024 and 22.33 billion gallons in 2025. There is significant new investment in biofuel and biogas facilities in the United States, although there have been recent shortfalls in production targets for cellulosic biofuels. The Trump administration has supported domestic biofuel production and released a proposed 'Set 2' rule in 2025 that would expand biofuels mandates to 24.02 billion gallons in 2026 and 24.46 billion gallons in 2027; the rule also specifies specific categories, with biomass-based diesel in particular poised for an expansion in required volumes. The Set 2 Rule also favours domestic feedstocks, granting only half credit for fuels produced with non-domestic feedstock. The Set 2 Rule would also alter certain aspects of the Renewable Identification Number (RIN) system, which is used to track and market biofuels. The proposed rule also

will eliminate the e-RIN programme, which would have allowed the creation of e-RINs based on the use of certain renewable power as a qualifying vehicle fuel. Other technical changes and adjustments to the RFS also are proposed.

With respect to biomass feedstocks in general, in 2018, under the first Trump administration, EPA issued a policy statement indicating 'EPA's policy in forthcoming regulatory actions will be to treat biogenic CO2 emissions resulting from the combustion of biomass from managed forests at stationary sources for energy production as carbon neutral'. The goal of EPA's pending actions was to 'promote the environmental and economic benefits of the use of forest biomass for energy at stationary sources, while balancing uncertainty and administrative simplicity when making programmatic decisions', acknowledging the need for clear regulatory policy even in the face of continued debate on an accounting framework for biogenic carbon dioxide emissions.

Law stated - 26 September 2025

Carbon capture and storage

Describe, in general terms, any policy on and regulation of carbon capture and storage.

Carbon capture and storage (CCS) has substantial potential to reduce GHG emissions from industrial sources but has not been widely demonstrated on a commercial scale. On 1 December 2010, EPA published its final rule concerning an expansion of its GHG reporting rule to include facilities that inject and store carbon dioxide for geologic sequestration or enhanced oil and gas recovery.

In January 2014, EPA issued a final rule excluding carbon dioxide streams in CCS projects from classification as a hazardous substance under the Resource Conservation and Recovery Act, provided that the streams are injected into Class VI wells and not mixed or co-injected with any hazardous wastes. CCS projects are potentially affected by several other regulatory programmes. For instance, NEPA and state equivalents may present regulatory hurdles by requiring environmental review of project impacts. State and local agencies may also impose permitting requirements on CCS projects. CCS development is subject to regulation under the Safe Drinking Water Act, and projects must obtain a Class VI injection well permit before commencing; these permits come with various rules, designed to prevent the subsurface migration of CO2 or other fluids or materials into drinking water. Several states have received approval to administer Class VI injection well permitting: North Dakota, Wyoming, Louisiana, and West Virginia. Arizona and Texas have primacy applications pending. Increasing state-level interest may help to streamline permitting and foster CCS development.

On 13 January 2021, the Treasury Department finalised rules to implement section 45Q of the Tax Code. The 45Q programme provides tax credits for capturing and sequestering carbon oxides that would otherwise escape to the atmosphere. In 2025, the OBBBA made several changes to 45Q, including setting a standard credit value to remove the distinction between geological sequestration and other commercial uses like enhanced oil recovery. Overall, the 45Q programme and its strong tax credit subsidies should continue to spur interest in US CCS projects.

Law stated - 26 September 2025

CLIMATE MATTERS IN TRANSACTIONS

Climate matters in M&A transactions

What are the main climate matters and regulations to consider in M&A transactions and other transactions?

Entities must consider a range of climate issues when undertaking M&A transactions. Risks generally fall into three categories: regulatory, economic and operational risk related to climate change impacts. Some matters also present M&A opportunities, such as incentives related to renewable energy. Increasingly, GHG disclosure and risk reporting requirements are also a factor when considering M&A activities. Matters to consider include:

- material operational or financial risk related to climate change impacts on infrastructure, facilities, supply chains, etc;
- GHG reporting and permitting obligations;
- existence of voluntary GHG reduction goals, attainment of those goals, any roll-back of or failure to attain GHG reduction goals, and related public disclosures and messaging, including compliance with consumer protection laws and the FTC Green Guides;
- EPA and state regulation of GHG emissions and related costs for higher-emitting industries;
- regulatory uncertainty given the rapid development of climate change law in the United States, particularly with repeated shifts in administrations and current lack of alignment with certain major trading partners, such as the EU;
- regulatory costs;
- litigation exposure to claims based upon alleged climate impact of corporate operations or of climate changes on corporate operations;
- financial and risk disclosure and compliance obligations under Securities and Exchange Commission rules and state laws, including new state-level disclosure requirements on GHG emissions and climate-related risks;
- adherence to the Equator Principles, if applicable, which include requirements for climate impacts;
- impacts on coastlines, ports, roads, buildings and other infrastructure related to increased storm intensity, floods, wildfire and rising sea levels;
- impacts on natural resources and commodities related to climate change, such as water supplies, fisheries, forestry products and crops;
- trade costs or disruptions related to climate-focused tariff schemes;
- global economic and security risks related to potentially destabilising impacts of climate change in certain regions; and
- market opportunities related to renewable power, renewable energy credits, GHG mitigation, supply chain GHG reductions, carbon offset development or trading and energy efficiency.

Law stated - 26 September 2025

UPDATE AND TRENDS

Emerging trends

Are there any emerging trends or hot topics that may affect climate regulation in your country in the foreseeable future?

Climate change regulation the US is facing rapid and dramatic shifts. While the Biden administration made major, historic investments in clean energy and carbon sequestration, the Trump administration is working swiftly and diligently to undo regulations, rescind tax credits and cancel other funding and permits. Although court challenges may hamper some of these efforts, some may succeed, and uncertainty persists in the meantime for certain sectors (such as wind and solar), projects and federal programmes, including federal GHG regulations and reporting requirements. At the same time, several executive orders have signalled the Trump administration's interest in increasing fossil fuel energy extraction and domestic biofuel production, marking a significant shift in policy that could harm competitiveness of some US industries seeking to compete globally.

The extent of the second Trump administration's impact on climate change policy – and overall US GHG emissions – may be constrained due to legal challenges, state-level action, market forces and international and voluntary standards. In the US, deregulatory actions must go through the same procedures as stricter regulatory standards, so there are opportunities for legal challenges prior to the rescission of existing regulations. However, the second Trump administration is moving rapidly even when their intended changes have significant legal vulnerabilities. A new policy that is ultimately overturned in court can still have a significant chilling effect while the challenge is pending.

Many states continue to increase their climate regulation, with California leading the charge. However, the Trump administration has signalled its interest in challenging state autonomy, most notably California's cap-and-trade programme and its more stringent vehicle emissions standards. Congress has already rescinded recently granted waivers for California's proposed vehicle emissions standards. At present, it is unclear what additional actions the Trump administration will take to challenge these state-level policies.

As US regulations and incentives change rapidly through 2025 and 2026, businesses will need to watch carefully for both direct and indirect impacts, including to supply chains. And as the US pushes back on global norms with respect to climate regulation – including withdrawing from the Paris Agreement – the full impact remains to be seen as litigation and state policy making play out in the coming years.

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