

US: Policy Developments and COP 27

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I. US positions of relevance to UNFCCC process

A. Leadership

- ❖ In December 2015 at the 21st Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC) — with strong leadership from the US — the *Paris Agreement* was adopted, coming into force the following year.
- ❖ In 2017, President Trump withdrew from the *Paris Agreement*.
- ❖ In 2021 — on his first day in office — President Biden signed the instrument to bring the US back into the *Paris Agreement*.
 - Executive Order 14008, of 27 January 2021, specified that the United States would immediately begin the process of developing its Nationally Determined Contribution under the *Paris Agreement*.

B. Nationally Determined Contribution (NDC)

- ❖ Economy-wide target of reducing its net greenhouse gas (GHG) emissions by 50–52 % below 2005 levels in 2030, with interim reduction targets of:
 - 17% by 2020
 - 26–28% by 2025
- ❖ Sectoral decarbonisation
 - **Electricity:** The United States is the world's second-largest producer *and* consumer of energy. Electricity accounts for 25% of domestic GHG emissions¹.
 - *Objective:* 100% carbon pollution-free electricity by 2035 through deployment of clean energy generation, transmission and storage, retrofitting existing plants with Carbon Capture and Storage (CCS) technologies — and existing nuclear energy.
 - **Transportation:** Number one emissions sector, accounting for 29% of total domestic GHG emissions.
 - *Objective:*
 - enhanced efficiency standards
 - incentives for zero emissions personal vehicles

¹ 2019

- funding for public and private charging infrastructure
 - research, development, demonstration, and deployment efforts in new-generation renewable fuels
 - **Buildings:**
 - *Objective:*
 - funding retrofitting programmes for existing buildings
 - investing in new technologies to reduce emissions associated with construction
 - **Industry:** Represents 23% of total GHG emissions².
 - *Objective:*
 - Supporting research, development, demonstration, commercialisation, and deployment of very low- and zero-carbon industrial processes including in:
 - CCS projects
 - new sources of hydrogen — produced from renewable energy, nuclear energy, or waste — to power industrial facilities
 - Government will leverage procurement to support early markets for low and zero-carbon industrial goods.
 - **Agriculture and lands:** Total net sequestration from land use, land use change, and forests *offset* approximately 12% percent of total domestic GHG emissions³
 - *Objective:*
 - scaling climate smart agricultural practices
 - investing in forest protection and forest management
 - restoring fire-damaged forests
 - pursuing marine “blue carbon” projects
 - **Non-CO2 GHG emissions:**
 - *Objective:*
 - Phasing down the use of HFCs as foreseen under the *American Innovation and Manufacturing Act* (AIM) [see also Kigali Amendment below].
 - Reducing Methane emissions, including from coal mine methane (CMM), via the natural gas distribution infrastructure and from agriculture⁴
- ❖ Mechanisms:
- US does not intend to use cooperative approaches to reach its reduction target⁵.
 - It will consider border tax adjustments in relation to carbon-intensive goods⁶.

² 2019

³ In 2019 sequestration was mainly through domestic forests, forest management, increased tree cover in urban areas, storage in harvested wood products, and the management of agricultural soils

⁴ improved manure management and improved cropland nutrient management

⁵ Via article 6.2/6.4 of the *Paris Agreement*

⁶ This is a similar approach to the one pursued by the EU to avoid carbon *leakage* to geographies where carbon intensive sector are less constrained

C. Towards COP-27...building on COP-26

- ❖ US made its first ever contribution to the *Adaptation Fund* at COP26 — this could be a positive signal to achieving the USD40bn p.a. adaptation finance objective, which is likely to be at the centre of COP-27 negotiations.
- ❖ Progress on implementing the *Global Methane Pledge* sponsored by the US and the EU would critically require China (and Russia) joining it.
 - Within the US-China climate change co-operation framework launched at COP-26, it was expected that China would be announcing an ambitious plan to reduce methane emissions.
 - Following suspension of this collaborative framework — as retaliation for US support for Taiwan — US climate envoy John Kerry hopes that US-China dialogue — if not co-operation — can resume at COP-27.
 - For the two world's-largest GHG emitters, working together in Sharm el-Sheikh is almost seen as a precondition for the conference's success.
- ❖ The Adoption of the *US Climate Tax and Spending Law/Inflation Reduction Act* gives a strong signal for renewed US leadership at COP27 (see below).

II. Scope of public actions at the federal level

A. Environmental Protection Agency (EPA) / Supreme Court rulings

- ❖ The *Clean Power Plan* developed under the Obama administration was to force power producers to switch from coal power generation to low-emission gas, wind and solar production.
- ❖ Following West Virginia's complaint against the EPA, the Supreme Court ruled that the US administration had not the authority to enforce decisions without congressional approval. It therefore limits EPA's competence to implement emissions mitigating regulations in the power sector.

B. US Climate Tax and Spending Law / Inflation Reduction Act

1. An ambitious package...

The USD369bn *Inflation Reduction Act* (IRA) package was signed into law on August 16, 2022, by President Joe Biden. It was introduced in the House as the Build Back Better Act H.R. 5376 by John Yarmuth on September 27, 2021. It passed the House on November 19, 2021. It passed the Senate as the Inflation Reduction Act of 2022 on August 7, 2022, with an amendment and the House agreed to the Senate amendment on August 12, 2022. The Inflation Reduction Act of 2022 was signed into law on August 16, 2022.

a) IRA addresses GHG emissions reduction through legislation...

- ❖ Overall GHG emissions to be reduced by 40% by 2030⁷
- ❖ Does not foresee a national carbon pricing mechanism

⁷ from 2005 levels

- ❖ For the first time puts a price on the emissions of methane, a particularly potent GHG, in order to achieve a reduction of 30% in emissions by 2030 by:
 - applying a penalty of USD900 / tonne of methane emitted which exceeds federal limits in 2024
 - rising to USD1,500/tonne in 2026⁸
- b) *...but ambition is not sufficient to meet its NDC trajectory (see above)*
 - ❖ Currently the US is on track for a reduction of just 24 to 35%⁹ from 2005 levels by 2030 — still a far cry from its 52% reduction trajectory by 2030 under its communicated NDC (see above).
- c) *IRA foresees accelerating investment in clean energy...*
 - ❖ USD30bn investments in solar panels, wind turbines, batteries, geothermal plants and advanced nuclear reactors
 - ❖ USD10bn in long-term investment tax credits (>10 years) to foster investments and production of renewable energy and electric vehicles — replacing existing short-term credits
 - A “transferability” mechanism allows for a secondary market in these credits, thereby further expanding financing options.
 - ❖ USD27bn to capitalise a *green bank* to support clean energy projects, particularly in disadvantaged communities (see also below)
- d) *...and also supports the development of the hydrogen sector*
 - ❖ Unlike in the EU, the IRA also foresees the production of hydrogen using fossil fuels. It, however, determines the level of tax credits according to its emissions intensity:
 - Ranging from USD0.6 to USD3 for each kg produced
- e) *It seeks to increase energy efficiency...*
 - ❖ Retrofitting power generation plants and industrial processes through CCS initiatives via an increase of tax credits to USD85 per sequestered tonne, up from currently USD50 per tonne
 - ❖ Deploying USD9bn in rebates for the purchase and retrofitting of homes with energy-efficient and electric appliances
- f) *...and fosters the uptake of electrical vehicles*
 - ❖ Tax credits of up to
 - USD7,500 for the purchase of *new* clean vehicles
 - USD4,000 for used electric vehicles for households with maximum income of USD150,000 a year
- g) *Deals with agricultural emissions*
 - ❖ USD20bn to be deployed to cut emissions in the agricultural sector

⁸ Smallest producers — emitting less than 25,000 CO₂e p.a. will be exempt — thereby excluding 60% of industry emissions

⁹ Rhodium group research

h) Addresses the affordability of the transition

- ❖ USD60bn were set aside to support low-income communities and communities of color, through grants for zero-emissions technology and vehicles, highway pollution mitigation, bus depots and other infrastructure located near disadvantaged communities.

2. ...with some challenges

a) Protectionist measures raise investment barriers and costs

- ❖ Well-functioning international supply chains in the renewables sector are a precondition to increase market penetration, but are affected by investment uncertainty due to:
 - the possibility of retroactive tariffs for parts makers
 - the law barring imports linked to forced labor in China
 - legislation affecting the offshore wind energy industry, which might be required to only use domestic vessels and crews when installing turbines

b) Hurdles to an efficient domestic energy transmission mechanism

- ❖ More long-distance transmission lines will be needed to deliver power from remote installations to meet demand elsewhere — yet states have the power to block interstate transmission lines

c) Acceptability

- ❖ “Not-in-my-backyard” reactions to the deployment of large solar and wind parks

3. ...and some conflicting signals for green transition

- ❖ In order to secure key backing [from Dem Senator Manchin], the IRA contains provisions that will actually lead to increased GHG emissions by:
 - supporting fossil fuel exploration through the sale of leases — including through auctioning public rights in the Gulf of Mexico and in Alaska
 - making leasing of federal territory to renewable energy producers dependent on whether leases of public land or federal waters were offered for sale to oil and gas producers during the previous year

C. National Environmental Policy Act (NEPA)

1. Environmental impacts of infrastructure projects

NEPA was adopted in 1970 and foresees rigorous environmental assessment procedures for infrastructure with a federal scope.

2. Revisiting NEPA...in return for IRA support

Senator Manchin’s support to IRA was also conditioned on revisiting NEPA and lengthy infrastructure permitting processes and opposing them on environmental grounds. According to the planned permitting reform infrastructure, permitting would be sped up through the introduction of time-bound limits for reviews, a measure that is believed to particularly benefit the oil and gas industry — such as the Mountain valley pipeline which would supply shale gas from West Virginia to Virginia. Reform would nonetheless also benefit long distance transmission lines, deemed essential to growing clean energy supply. On 27 September 2022 this controversial plan was, however, pulled from the IRA bill.

III. Scope of public actions at the State-level

A. California

1. Ambition

Californian emissions per capita are at 50% of US average¹⁰. The latest climate bill approved at the end of August 2022 foresees aims for carbon neutrality by 2045 to be achieved through:

- ❖ Reducing GHG emissions by 85% by 2045
- ❖ Offsetting unabated emissions via nature-based solutions and carbon capture

2. Reality

The CARB¹¹ cap-and-trade system — which puts a cap on highly emitting installations — has been around for a decade. It does not seem to be ambitious enough to meet California's climate 2030 objectives. The design of the Californian cap-and-trade system led to an oversupply of emissions credits, therefore not providing a signal for decarbonisation.

3. Sectoral approach in 2022 climate legislation

a) *Transportation*

As at the Federal level, the transportation sector is the highest emitting sector in California. To address emissions in the sector sales of new internal combustion engine cars are to be halted by 2035.

b) *Energy*

- ❖ CARB expects power demand to increase by 2/3 by 2045. Recent heatwaves already revealed that the system is close to its limit. This led to legislation to:
 - Extend the lifespan of the last nuclear power station's lifespan till 2030 — (currently accounting for 9% of energy supply)
 - Improve the transmission network
 - Increase storage capacity
- ❖ The renewables sector is to increase its share in California's energy mix and will be supported through a USD54bn package which also requires:
 - To fully eliminate emissions from the power grid by 2045
 - For the Californian public administration to be supplied by renewable energy sources by 2035
 - For the retail sector to be
 - 90% to be supplied from renewable sources by 2035
 - 100% by 2040
 - No new oil and gas exploration is to take place within one kilometre of housing.

¹⁰ California Air Resource Board (CARB)

¹¹ California Air Resource Board (CARB)

IV. Securities and Exchange Commission (SEC)

A. Climate risk reporting proposal

1. Three categories of disclosure obligations

a) *Material climate impact*

- ❖ Disclosure of material risks (as a result of floods, brush fires, etc)
- ❖ Share of assets by exposure and location
- ❖ Disclosure of transition risks (regulatory, market, reputation)
- ❖ Disclosure of impact (financial, operational)
- ❖ Governance readiness to deal with material climate impact

b) *Greenhouse gas emissions*

- ❖ Reporting of scope 1 and scope 2 emissions to be carried out first, subsequently scope 3 disclosure if a material impact is likely
- ❖ A registrant would be required to disclose GHG emissions for scope 3 only if the registrant has set a goal that includes Scope 3 emissions.
- ❖ Reporting in absolute terms and in intensity (e.g., per USD sales and per unit)

c) *Transition plans*

- ❖ Disclosure of:
 - existing plans to reduce emissions, use energy, nature loss, etc.
 - internal carbon price if it exists
 - use of offsets

V. Other developments

A. Kigali Amendment to reduce the production and use of HFCs¹²

The US Senate ratified the updated treaty on 21st September 2022. The ratification was supported by the US Chamber of Commerce — as it was considered helping US companies that produce alternatives to HFCs.

VI. Need to rapidly adapt

B. Extreme heat belt

Exposure to extreme heat (above 52C) is to affect 8m citizens in 2023 and 107m by 2053¹³.

¹² Hydrofluorocarbons a potent GHG

¹³ First Street Foundation (2022)