President Biden pledges an ambitious climate strategy

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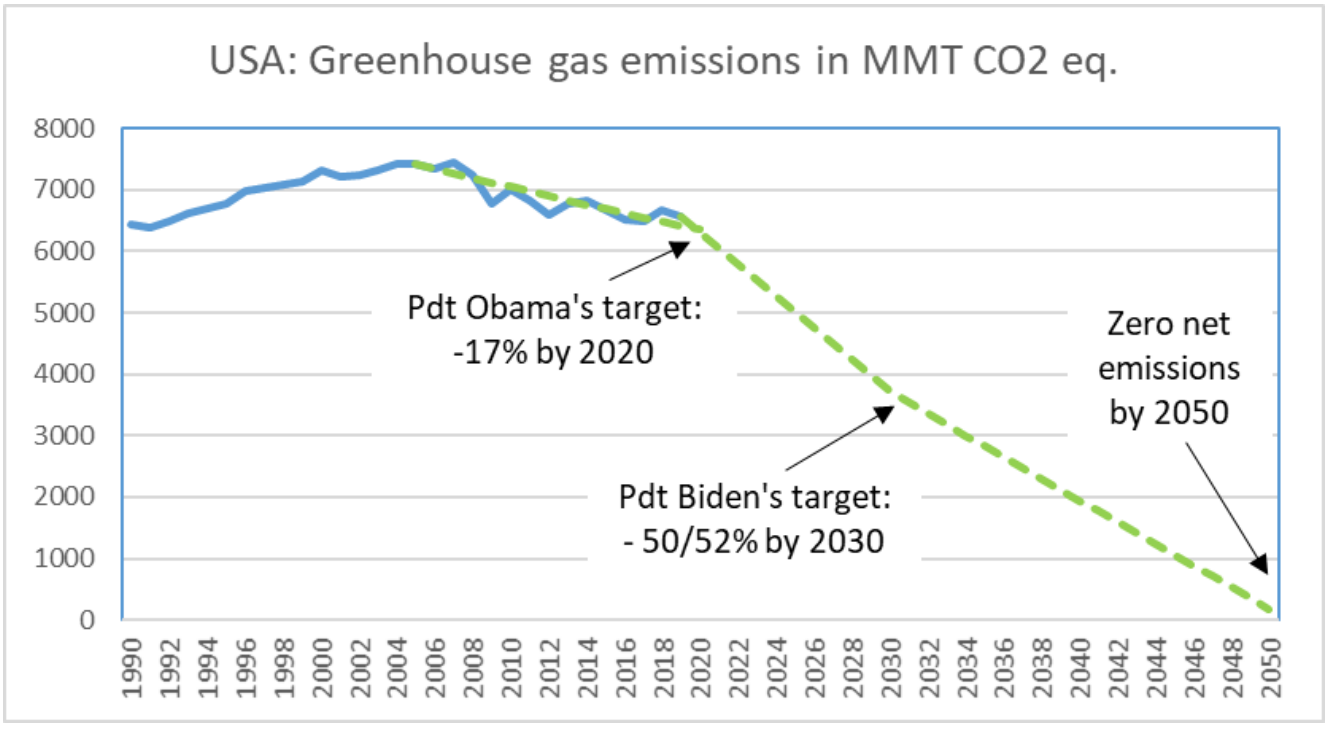
Ten years ago, the OECD published an in-depth analysis of U.S. greenhouse gas emissions (GHG) and urged the country to reverse gears (Carey, 2010). The analysis welcomed President Obama's pledge in Copenhagen to cut the country's emissions by 17% in 2020 from 2005 levels, but found that this would require new policy measures. As we approach the new climate summit in Glasgow (COP26), the United States can display progress: according to the latest data released by the Environment Protection Agency, GHG emissions have declined and President Obama's target is within reach (Figure 1). President Biden has now pledged further progress with a target to cut GHG emissions by at least half in 2030 and achieve zero net emissions no later than 2050. These targets will imply to bend the curve and accelerate the pace of emission cuts.

Figure 1: A faster pace of emission reductions is required



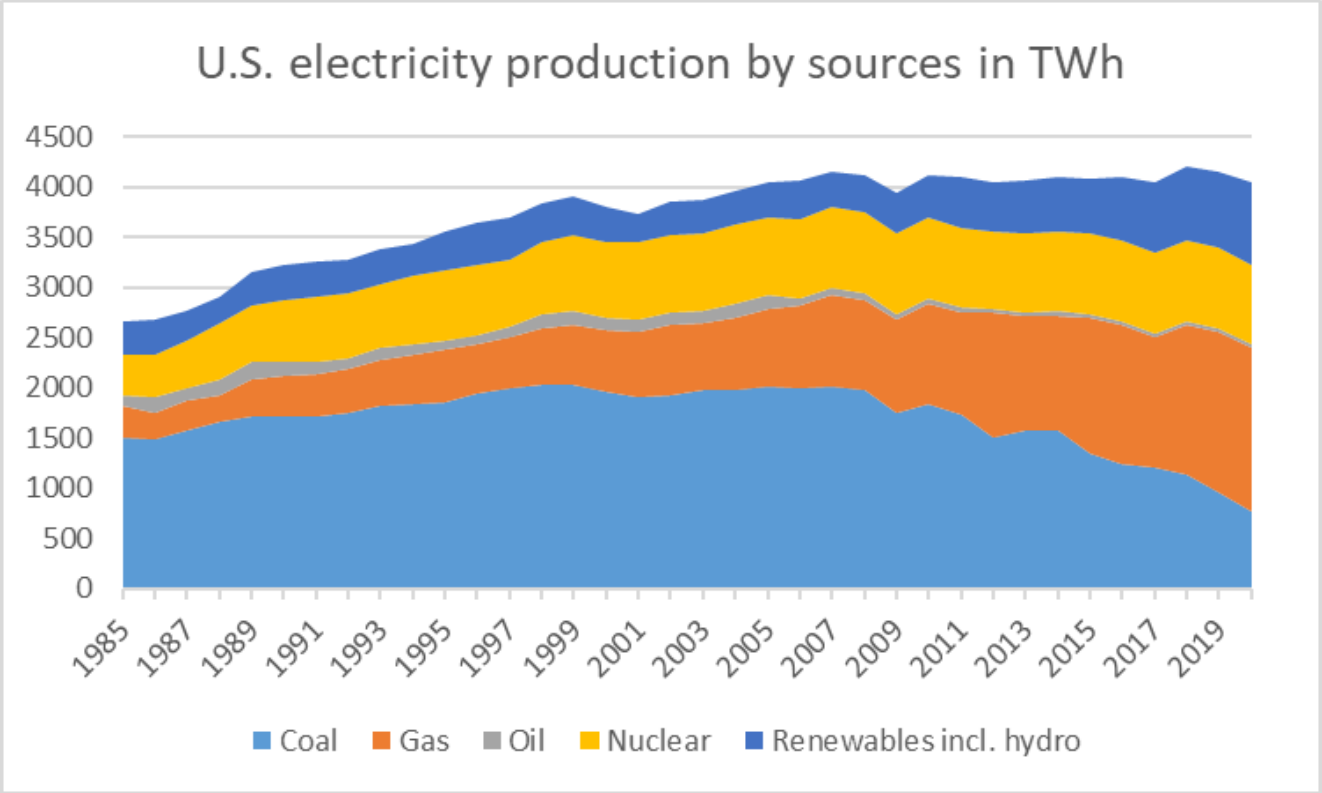
Note: When published, 2020 data will show a sharp decline of

emissions caused by the COVID19 recession, but emissions are likely to rebound in 2021 with the recovery of activity.
Source: Environmental Protection Agency.
The United States has already achieved a welcome reduction in GHG emissions. At first glance, this seems surprising after policy changes made during the Trump Administration such as the repeal of the Clean Air Act, subsidies favouring fossil fuels, and curbs on state-level regulatory standards. The reasons for this progress is that a lot has happened in the energy market, at the subnational level, and with tax credits:

- **Electricity production has been gradually decarbonised** thanks to the decline of coal, the rise of natural gas, and the emergence of renewable energy sources such as wind turbines and photovoltaic panels (Figure 2), which have been encouraged by subsidies and regulation.
- **Cap-and-trade carbon markets** have encouraged this energy transformation at the regional level. The Regional Greenhouse Gas Initiative (RGGI) is an agreement between nine states that aim at curbing CO_2 emissions in the electric power sector. RGGI helped to reduce emissions in 2020 by 47% relative to 2005 in these states. California and Quebec have also joined forces and maintain a multi-sector cap-and-trade market.
- Several **tax credits** already encourage households, firms, and utilities to use clean energy and improve their energy efficiency: an investment tax credit partially pays for the cost of installing photovoltaic solar panels; a plug-in electric vehicle tax credit helps buyers of new electric vehicles; a producer tax credit subsidizes the use of renewable energy sources.
- Many other **policy interventions** seek to curb emissions at the federal level (e.g. financial support to research in renewable energy), state level (e.g. California's vehicle emission rules) and city level (e.g. Seattle's ban of combustion engine cars by 2030). In addition, many U.S. firms have made net zero emission pledges, and

financial institutions have plans to withdraw funding to the fossil fuel industry.

Figure 2: Coal is no longer favoured in electricity production



Source: OurWorldinData based on BP and Ember.

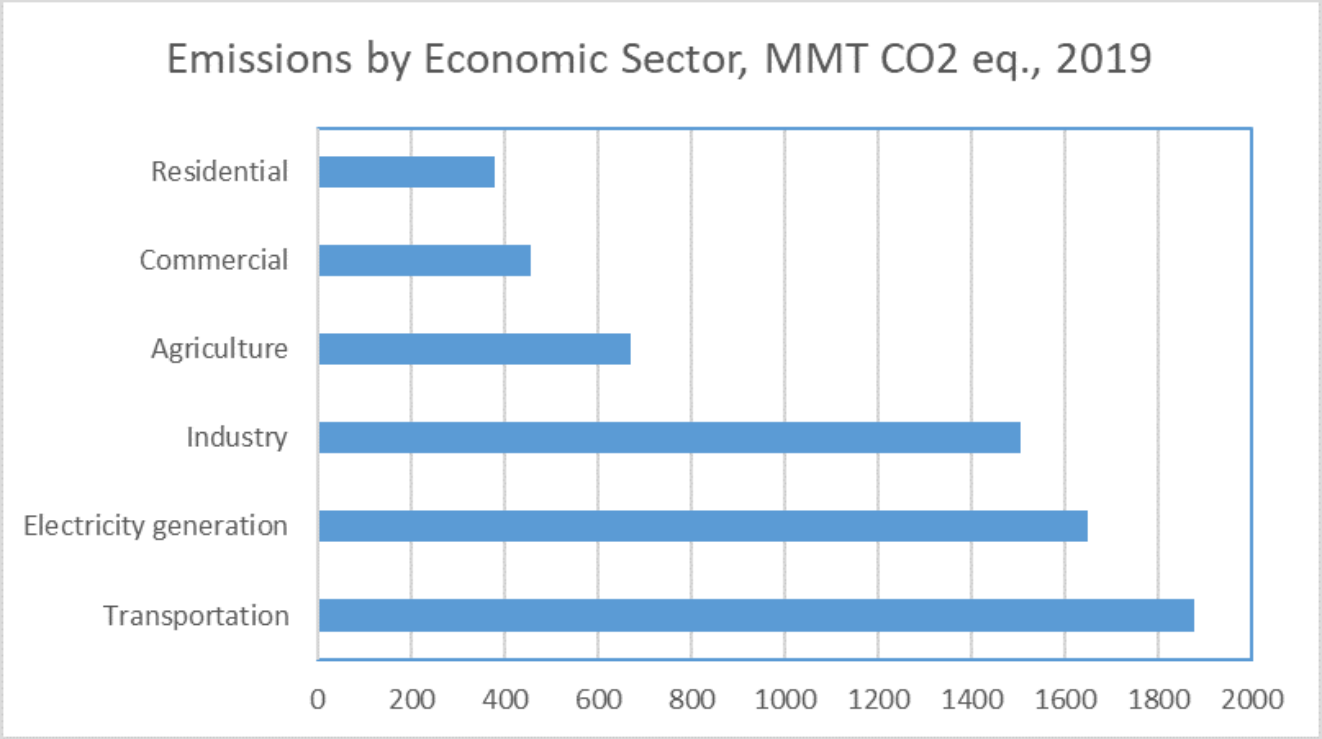
Despite past progress, much remains to be done in the United States, like in many other countries, to limit the rise in global temperature. The United States still emits the largest amounts of GHG and CO_2 per capita among G20 countries, together with Australia and Canada. The effective pricing of energy-related carbon emissions in the United States is among the lowest in G20 and OECD countries: only 22% of these emissions are priced at €60 per ton of CO_2 or more, the level considered as the minimum to reach the Paris climate targets (OECD, 2021a).

High energy prices are often favoured in terms of cost efficiency, but they would have a regressive impact on income distribution and are politically challenging. President Biden has therefore announced alternative measures to lower GHG emissions:

- **Tax credits will be further increased to** decarbonise electricity production and encourage energy efficiency. Such tax credits can act like carbon taxes because they reduce the cost of renewable energy relative to fossil fuels. However, their impact is limited to specific sectors, unlike economy-wide carbon taxes, and their fiscal impact is negative because they reduce government tax revenue.
- **The purchase of plug-in electric cars will be encouraged** by tax credits and public investment in battery recharging stations. Ownership of electric vehicles in the United States is one of the lowest in the OECD and G20 and the Administration plans to catch up with other countries.
- **More public investment will help the green transition.** Investment will strengthen the nation's electricity grid, and financial support will target the energy efficiency of buildings.

President Biden's plans are a big step forward toward a low carbon future. The measures will help to decarbonise electricity generation and transportation, but questions remain about other large emitting sectors, especially industry and agriculture (Figure 3).

Figure 3: Transportation and electricity sectors are large GHG emitters, 2019



Source: Environmental Protection Agency.

References:

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