Climate change goals: green art of the possible

By Daniel Gros/Brussels

US President Joe Biden recently gathered 40 world leaders for a summit on combating climate change, a welcome sign of progress on forging a global strategy. But tackling global warming is a marathon, not a sprint. And while the recent increase in climate ambition from the United States and the European Union is welcome, more difficult choices lie ahead.

Back in 2009, for example, the US led the global effort to achieve the Copenhagen Accord at the COP15 climate-change summit, which was attended by more than 100 world leaders. But hopes of a meaningful US contribution were subsequently killed by bipartisan opposition in Congress, which balked at the perceived cost of reducing emissions.

Biden, who was then vice president, faces a similar problem today: how to make good on his pledges while knowing that Congress will not approve any serious climate measure. He has therefore chosen the path of least political resistance, which is why Biden’s climate plan carefully avoids notions such as a

“carbon tax” or a “cap-and-trade” emissions scheme, both of which are politically toxic in the US.

Biden’s target of halving US emissions by 2030 sounds ambitious, but the substance is actually much less demanding. Governments invariably choose the benchmark year that makes the biggest headlines. The US has chosen 2005, because that represents the high-water mark for US emissions. Since then, emissions have already declined by about 25%, thanks to the substitution of shale gas for coal. Reducing emissions by 50% from 2005 levels requires a further fall of about 30%.

The EU also has chosen a convenient baseline, namely, its own peak emissions year of 1990. But its target of lowering emissions by 55% by 2030 entails a further reduction of over 40% from today’s level.

Given that US per capita emissions are currently about twice the European level, achieving Biden’s pledge would reduce them only to the EU’s level of today by 2030. By that year, US per capita emissions would still be more than double those of the EU.

The key to the Biden administration achieving its 2030 target is its pledge to make the US power sector emissions-free by 2035. But this might be difficult to achieve, given that fossil fuels currently account for about 60% of US electricity (compared to about 34% in the EU).

Moreover, making one sector totally emissions-free while taking little action in other areas increases the cost of reaching the overall target. This is a mistake the EU previously tried to avoid when establishing its Emissions Trading System (ETS), which covers both industry and the power sector.

The Biden plan boldly asserts that decarbonising the power sector “can be achieved through multiple cost-effective pathways.” This is difficult to believe. For starters, it took more than a decade of subsidies before renewables made a meaningful contribution to the overall energy mix in Europe.

The cost of renewables has fallen greatly over the last decade, in many cases by a factor of five, partly thanks to

these subsidies setting in motion a cost-reduction process as demand for solar panels and batteries increased.

The Biden administration also says that carbon capture and storage can make a potentially important contribution. But CCS remains an expensive technology, with a much smaller potential for cost reductions.

US climate policy thus makes little sense from an economic point of view. Biden's approach is instead best understood as a political strategy aimed at so-called battleground states such as Pennsylvania, where coal remains economically and politically important. A carbon price will become possible in the US only when the last coal mine has closed.

The European approach – with the ETS and its emissions allowances that can be traded across sectors and countries – looks much more sensible at first sight. But a closer look reveals similarities with Biden's plan. When the ETS was created, industrial firms argued that sectors subject to international competition should receive their allowances for free to avoid so-called "carbon leakage." Predictably, the risk of carbon leakage was found to exist in almost all industries. EU industry thus obtained most of the allowances for free. The ETS worked only because the EU's power sector was treated differently, given that there is no international competition in this sector.

The implicit deal underpinning the ETS was thus that industry would be spared the pain of emissions reductions. The entire burden of adjustment fell on power generation, where an increasing supply of renewables made it possible to reduce emissions by about a quarter over the last decade. EU industrial emissions have not fallen significantly. But this might change now that the price of emissions certificates, which for many years had remained in the single digits, has reached almost €50 ($60) per ton.

Free allocation of emissions allowances also meant that the EU has had little justification for introducing a carbon border tax. Such a measure would be justified (and should be approved by the World Trade Organisation) only if the free allowances

were abolished at the same time – but this is vehemently opposed by industry.

The underlying political deal is thus similar on both sides of the Atlantic: decarbonise the power sector first, while sheltering industry from higher costs. Europe's experience suggests that this can generate some modest progress in reducing emissions, but achieving the more ambitious targets ahead will require tougher choices. The US will not be able to rely on renewables providing all its power, and the EU will have to start putting pressure on its own industry. – Project Syndicate

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