

EPA's Emissions Standards Deliver US Copenhagen Pledges a Decade Late

The standards proposed by the US EPA on June 2 aim to cut carbon pollution in the power sector by 30% from 2005 levels by 2030¹. Despite the impressive sounding figure, a quick analysis by Sandbag shows that the emission cuts that this policy proposes could mean the US's Copenhagen pledge is delivered a decade late. The pace of implementation seems sluggish, meaning that US decision-makers are passing steeper and more expensive abatement pathways onto future generations. Also, while the EPA does aim to cut an absolute amount of emissions, it only actually invites States to set up carbon intensity targets, which make it possible for emissions to grow.

165 of the US's 600 coal plants are already now set to be closed in the next few years because they cannot comply with toxic metal regulations or compete against natural gas in the market. Yesterday's new regulation attempts to bring further pre-existing installations into the regulatory fold by prescribing rates at which carbon dioxide can be emitted in electricity generation for individual states. The EPA is proposing state-specific emissions goals for reducing carbon dioxide emissions from the power sector. Each State's goal is a rate – a single number for the future carbon intensity of that State. The average rate for the 49 states (Vermont has no fossil fuel fired capacity) proposed by the EPA is 0.449 t/MWh.² As current coal-fired generation in the US averages 1.012 t/MWh³, the EPA's package essentially amounts to a requirement for states to find ways to limit the use of coal-fired thermal power by 2030. The EPA is not prescribing a specific set of measures for States to put in their plans, but does suggest cap-and-trade programs as an option.

US Emissions of GHG

Sectors	1990	2005	2011	2020	2030
Power sector	1,865.8	2,471.2	2,212.0	2,025.8	1,729.9
Non-power sector	3,002.9	3,300.4	3,075.2	3,075.2	3,075.2
<i>Total</i>	<i>4,868.7</i>	<i>5,771.7</i>	<i>5,287.2</i>	<i>5,100.9</i>	<i>4,805.0</i>

In the above table Sandbag makes a rough evaluation of what the impact of the EPA's proposed initiative alone would be based on latest IEA data on US emissions (for 2011). We keep emissions from the non-power sector constant until 2030 and allow power sector emissions to fall linearly from today (using 2011 figures) until 2030. Total emissions also fall in due course to 4,805 Mt in 2030, a fall of 17% compared to a 2005 baseline and yielding a year-on-year economy-wide abatement factor of -0.60%. Unfortunately, this implies the US meeting its economy wide Copenhagen pledge a decade late. Emissions in 2020, the Copenhagen target year, would amount to 5,100.9 Mt, which represents only an 11.6% cut of total US emissions relative to 2005. This is still nearly 5.4 percentage points above what the US had pledged in 2009 in Copenhagen. Our projected 2030 economy wide reduction is nearly 4.8% above the US's 1990 emission levels. We do acknowledge that the US has other policies in place, such as moving to tighter fuel tighter fuel standards, but taken on their own yesterday's power sector regulations can hardly be said to be in line with the IPCC's recommended goal that developed countries cut their emissions by 2020 by 25%-40% relative to 1990. The danger is that a huge amount of political

¹ <http://www2.epa.gov/carbon-pollution-standards/clean-power-plan-proposed-rule>

² Converted by Sandbag from lbs/MWh.

³ <http://www.epa.gov/cleanenergy/energy-and-you/affect/air-emissions.html>

capital is expended trying to win even these modest gains, leaving little room for additional policy endeavours.

Curiously, examination of the 626 page EPA proposal shows no clear mechanism for ensuring that even this modest absolute goal is achieved. The Agency proposes that states keep the amount of carbon dioxide emitted by power generators per MWh of electricity below a certain value – an intensity, or “rate-based target”, as the text calls. As a flexibility measure this target can be converted into an absolute, or “mass-based”, target, but the reverse also seems to be possible in the longer term if economic growth were to kick in after 2029. Furthermore, this conversion does not seem to be automatic. In Sandbag’s simple scenario, if electricity consumption expanded faster than the -0.60% year-on-year emission cuts, absolute emissions growth would as a mathematical certainty offset gains in intensity, yielding a regulation where states are compliant yet carbon pollution worsens. The best scenario emerging from these regulations is possibly that more States decide to join either of the two pre-existing emissions trading markets in the US where absolute cuts can be delivered at least cost.

The new policy instrument also seems very slow to act. States are allowed to set their own goals in response to that proposition and to create their own policy mixes to comply with those goals by drawing on four building blocks: make fossil-fuel power plants more efficient, use low-emitting power sources more, use more zero- or low-emitting power sources, and use electricity more efficiently. All states must submit initial or complete plans by June 30, 2016, with the option to use a two-step process for submitting final plans if more time is needed. Individual state plans would be eligible for a one-year extension to June 30, 2017. Multi-state plans would be eligible for a two-year extension to June 30, 2018 and would need to submit a progress report in the interim by June 30, 2017. Once a state submits a complete plan, the EPA will review the plan and make a determination, within 12 months, to approve or disapprove the plan through a notice-and-comment rulemaking process. Therefore, this process essentially leaves as much as five years (2018 multi-state deadline, plus one further year for EPA review) before all states would need to start implementing their bottom-up carbon abatement packages – and this is assuming that it is not derailed by lawsuits launched by carbon-intensive industries.

Alex Luta, Campaigner and Policy Analyst at the Sandbag Climate Campaign says:

“The White House has tactically side-stepped the legislative logjam in the Congress. But what EPA Administrator Gina McCarthy has given us is still a far cry from what scientists tell us we need to do in developed countries to keep global warming below 2 degrees. The EPA program is not even proportionate to the US’s own Copenhagen pledge – and may even lead to emissions increases. This means that, even though many of the least costly abatement options are in the power sector, other sectors of the US economy shall have to work that much harder. The political situation in the US has clearly still not changed sufficiently to enable them to take the action that is necessary. These regulations will need to be significant improved over time if they are to be useful in the fight to reduce the risk of climate change.”