USA

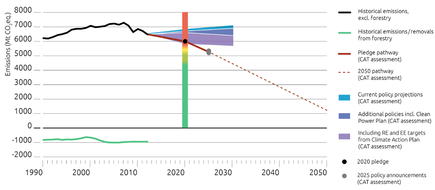
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Rating



Assessment

The US has pledged to reduce GHG emissions by 17% below 2005 levels by 2020 (equivalent to -3% below 1990 levels). For the post-2020 period, the US has announced a target to reduce emissions by 26-28% below 2005 in 2025. According to our analysis, the US will need to implement additional policies to reach its proposed targets. The planned policies (e.g. the targets in the Climate Action Plan) can be sufficient to meet the 2020 pledge, if fully implemented. Additional policies will have to be implemented to reach the 2025 pledge, which requires a faster reduction rate than until 2020.



Pledge and post-2020 contribution

The United States is not a Party to the Kyoto Protocol. While a target of a 7% reduction below 1990 was originally negotiated, the US never ratified the Protocol and the target never came into force.

In the Copenhagen Accord, the US announced an emissions reduction target of 17% below 2005 levels. In absolute terms, this means a level of 5,999 $MtCO_2e$ in 2020 (excl. LULUCF). They also stated this was in line with the long-term goal of reducing emissions by 83% below 2005 by 2050 (United States Department of State, 2010).

At the UNFCCC workshop in April 2011, the US reaffirmed the 17% reduction below 2005 in 2020 as an economy-wide target, to be implemented through various national policy instruments. It stated that the target applies to all sectors according to the agreed IPCC guidelines for national greenhouse gas inventories. Forests would be accounted for according to the broadest possible scope.

In November 2014, the US announced that by 2025, they would aim at reducing emissions by 26% to 28% below 2005. This level is consistent with a linear interpolation between the 2020 pledge and the national long-term target.

There is significant uncertainty surrounding the consequences of these targets on industrial GHG emissions (all emissions excluding LULUCF) due to uncertainties in the estimation of LULUCF emissions. If for example the estimate based on official data reported in 2009 was applied, the 2020 target would likely translate to a +3% increase of industrial emissions relative to 1990 levels, whereas the estimate based on data reported in 2010 would result in a likely -3% reduction from 1990 levels in 2020.

Kyoto Protocol	
Member of KP CP1	no ratification
Member of KP CP2	no
KP CP1 target (below 1990)	n.a.
KP CP2 target (below 1990)	n.a.
Convention	
Copenhagen pledge	-17% by 2020
Reference year for pledge	2005
Conditions (for higher pledge level)	no range
Post-2020 contribution	26% - 28% in 2025 below 2005
National goals	
Long term goal(s)	83% by 2050 below 2005 level

Estimates based on the UNFCCC CRF (common reporting format) data reported in 2014, indicate that US industrial emissions would be close to 1990 levels in 2020. The important issue is that these uncertainties arise from the same or very similar historical periods and the differences are a result of technical revisions of data and methods. In addition, the US mentioned that LULUCF adjustments may arise from natural disturbances and other factors, but details were left unclear.

Current policy projections

With currently implemented policies, the US is expected to achieve emissions levels of approximately 6,770 – 6,790 $MtCO_2e$ in 2020 and between 6,950 and 7,050 $MtCO_2e$ in 2030 (excl. LULUCF). With a linear interpolation, this would mean a level between 6,860 and 6,920 $MtCO_2e$ in 2025.

Under this scenario the US would need to implement further policies to achieve its pledge. With additional measures as outlined by the Obama government in "The President's Climate Action Plan" (CAP) in June 2013 (Executive Office of the President 2013), the pledge could be achieved. The pledge achievement can also depend on the level of sinks from LULUCF: The National Communication projects that in 2020, the US LULUCF sector's sinks will absorb between 614 and 898 $MtCO_2e$, and for 2025 573 to 917 $MtCO_2e$. The uncertainty is high and the final level in 2020 could have an impact on whether the pledge will be achieved as well.

Historically, US emissions constantly increased between 1990 and 2007. The financial crisis from 2008 saw emissions drop. In 2010 they began to increase again, but 2011 and 2012 saw a downward pressure, mainly resulting from a strong shift to natural gas as an energy source and some decrease in total energy demand. In the US, a variety of activities are taking place both on state and federal levels and in all sectors. Nevertheless, a more comprehensive approach with adequate coverage and momentum could more substantially reduce emissions.

The "Clean Power Plan," announced in 2014 and currently undergoing public consultation, aims to reduce emissions from the power sector by 30% below 2005 levels by 2025. This alone is an important step, but its sole impact is insufficient to meet the US targets. This policy may prevent a reversal of the shift from coal to gas in case of changing market conditions, together with the New Source Performance Standard – a regulation in the pipeline to limit specific emissions of new power plants.

Another important area in the Climate Action Plan (CAP) is its aim to increase energy efficiency in demand sectors, where it foresees, for example, energy efficiency standards for appliances and federal buildings, different financial incentives and energy saving measures in federal agencies. Not all activities in the plan have been clearly defined. Two overarching targets included in the plan are to double renewable energy generation by 2020 and double energy productivity by 2030 compared to 2010 levels. According to our assessment, complying with these targets would reduce emissions to 5830 $MtCO_2e$/a in 2020 and 5690 $MtCO_2e$/a in 2030 which would put the US on a trajectory to meet its 2020 target. For non-energy sectors, the plan includes measures concerning methane emissions, controlling HFCs and emissions from LULUCF, which need further refinement and have not been evaluated at this time.

A few areas targeted with the CAP have already seen concrete activities in 2013 and 2014. The process to permit installations of renewable energy systems on public land has been modified, making it less complicated to prioritise renewable energy (U.S. Department of the Interior 2013b). Also, the auctioning of renewable energy is now an established process, which can be accelerated or kept moving (see for example U.S. Department of the Interior 2013a). Further, various energy efficiency standards have been issued (Office of Energy Efficiency and Renewable Energy, 2014) whose effects are not yet in the current policy projections, but may have an important impact on emissions especially in 2030.

The planned activities are not included in our projections of emissions with implemented policies, as these will depend on future decisions and actions. However, the framework being created at the moment is crucial for the US to prepare future actions, and demonstrates that the US government is creating opportunities to push forward climate change policies. Further, state action is an important driver of US climate policies and dynamics on that level may lead to further reductions.

Date of pledge: January 2010

Assumptions

Pledge

Targets for 2020 were calculated from the most recent national inventory submissions (CRF, 2014).

The US have announced that they prefer a comprehensive, land-based approach that takes advantage of the broadest scope of mitigation actions. For the post 2012 period (2013-2020), LULUCF accounting was calculated using a land-based approach, which assumes net-net accounting relative to 1990, using data from the national inventories (CRF, 2014).

Current policy projections

For the projections, we sum up energy related emissions projections from EIA's Annual Energy Outlook 2014 (US Energy Information Agency, 2014), and non-energy emissions from the 6th National Communication (US Department of State, 2014). For the scenario including the Clean Power Plan, we assume a 30% reduction of emissions from the energy sector in 2005 by 2030.

Comparison with the US national assessment

In the 6th National Communication, USA provide emission projections with all policies included until the end of 2012, and projections including the planned activities of the CAP. The data provided shows that the pledge may be met, but that there is substantial uncertainty around the effect of the CAP and sequestration removals. The resulting emissions are in a range between 4900 and 5600 $MtCO_2e$/a incl. LULUCF in 2020 (5,520 – 6,500 $MtCO_2e$/a excl. LULUCF). For the lower end of the range, the emission reduction pledge will be achieved. This means that using this data, the USA will need to fully implement the CAP and reach the high end of sequestration removals in order to meet the pledge.

The National Communication used AEO2013 as the basis for projections of energy related CO_2 emissions and adjusts the values to match international reporting requirements. That scenario includes policies implemented until December 2012. The EPA prepared data for non-energy related and non-CO_2 emissions.

The total emissions in 2020 under the reference scenario with policies implemented until December 2012 are 6,815 $MtCO_2e$/a excl. LULUCF in the National Communication, a 5.3% decrease in comparison to 2005 according to the document. The CAT current policy projections end up at 6,770 - 6790 $MtCO_2e$/a excl. LULUCF. The small difference results mainly from the update of the AEO to the 2014 version used by CAT, which includes the effect of policies implemented until December 2013.

The CAT defines "currently implemented policy" as any sort of regulation or legislation that is in place. Most of the activities under the President's Climate Action Plan (CAP) do not fall into this category and are therefore excluded from the CAT current policy scenario. This does not mean that their implementation is less likely, depending on how the initial ideas are eventually translated they may turn into very effective policies. One example of important action may be the reduction of methane and HFCs, which the CAP names as two out of various areas. However the CAP does not spell out concrete activities regarding those, nor has legislation or regulation been implemented

The CAT considers additional scenarios to reflect some planned policies: Including the Clean Power Plan, the CAT analysis results in emissions of 6600 $MtCO_2e$/a in 2020 excl. LULUCF. With the targets to double renewable energy electricity generation (excl. large hydro) and to double energy productivity laid out in the Climate Action Plan, the CAT estimates emissions of 5,830 $MtCO_2e$/a in 2020. This is within the range of the National Communication and would be sufficient to comply with the 2020 pledge.

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