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US Energy and Climate Change Policies – Obama's Second Term

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A. Summary

There is a potential opening for federal climate change legislation in the US, but the political reality is still against its passage in this Congress. The Obama Administration is convinced that climate change is a priority; there is growing political and public support for federal legislation; the science of climate change is increasingly accepted as justifying action; and there is now a growing conviction that there is no conflict between economic growth and taking care of the environment.

Yet, the consensus is that comprehensive climate change legislation will not be enacted in the next few years. Republican Members of Congress (especially the Tea Party members) will not support legislation. There is also opposition from parts of the fossil fuel lobby and their political representatives in both parties.

The most likely outcome for President Obama's second term is a series of initiatives that were identified in the President's State of the Union (SOTU) address and his *Plan for a Strong Middle Class & a Strong America*. These include measures to increase renewable electricity production, reduce energy consumption through energy efficiency, promote a shift away from oil in transport, and support the development of shale gas, which is reducing the role of coal and thereby reducing CO₂ emissions.

Compared to the very substantial and expensive decarbonisation efforts in the EU, President Obama's proposed decarbonisation measures for the second term seem relatively unambitious; one would hope at least that this means they can be delivered.

The implication is that the federal government will probably adopt a series of regulatory measures with uncertain implications for overall emissions, and that the US will not be in a strong position to convince other countries to act decisively to combat climate change.



The prospects for climate change legislation could change if a carbon tax becomes part of a fiscal package. The fiscal debate is **the** political issue today facing Congress and some Republicans favour a carbon tax as part of a revenue neutral reform – e.g. in return for corporate tax reductions. It is also conceivable that some industries and their political representatives (e.g. from coal states) will favour comprehensive legislation rather than a wide range of different regulatory and legislative initiatives at the state and federal level. Major adverse weather events might also change minds. Otherwise, those who support federal climate change legislation will have to wait at least until the mid term elections and hope for a change in the configuration of the House of Representatives.

The central message is that the Obama Administration can now make the economic case for sustainable energy, but is unable to pass comprehensive climate change legislation without support from special interest groups and from legislators who are ideologically opposed to government intervention and new taxes.

B. Context – Obama’s First Term

Federal climate change legislation was not possible in President Obama’s first term due to (a) opposition especially from hydrocarbon lobbies and their political representatives in both parties, and (b) overwhelming control of the House by Republicans in the last two years.

But Executive and other action was significant, including:

- Major economic stimulus funding, e.g. for CCS, smart grids, electric vehicles (EV);
- New car fuel efficiency standards;
- Tax and other policies at federal and state levels to support renewable energy and especially wind and solar electricity; and
- Environmental Protection Agency (EPA) action to reduce coal-based emissions of different kinds.

The greatest reduction in CO₂ emissions was due to the increase in shale gas production and the related decline in the price of natural gas, which largely explains the rise in gas-based generation and the decline in coal-based generation – from almost 50% to 38% of total generation.

So the US made progress in CO₂ emission reduction in the absence of federal climate change legislation, basically through a combination of market forces (i.e. shale gas developments) and intervention (i.e. EPA actions and federal and state support to renewables).

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Throughout the period, the public message has been more about energy security and creating jobs than about climate change. To the extent that these objectives were in conflict, the priority was not climate change.

Now, however, there is greater public concern over climate change and a greater prospect of political action, partly due to weather events (e.g. Sandy); high level political support (e.g. Governor Christie, Mayor Bloomberg) for legislative action; new and increasingly worrying scientific evidence of the risks to the climate; AB32 entering into force in California; and the fact that global negotiations could now yield an agreement that addresses US concerns, especially on verification of emission reductions in China.

C. What to expect – Obama’s Second Term

Can we expect this new mood to result in ambitious climate change policies, and in comprehensive legislation that will price CO₂ emissions and set ambitious national CO₂ emission reduction targets? Probably not, but let’s look at this more carefully to explain why not, and what we can expect.¹

First, in his *Plan for a Strong Middle Class & a Strong America*² and his State of the Union (SOTU address) he emphasizes the goal of slashing reliance on foreign oil and increasing energy security through clean energy, by which he means home-grown energies, from natural gas to renewables.

What specifically has the President proposed on climate change? In his SOTU address and the aforementioned plan, he:

- called on Congress to pass climate change legislation along the lines of the McCain Lieberman cap and trade bill that involved auctioning allowances and recycling much of the revenues back to tax payers;
- directed his Cabinet to introduce executive actions to reduce pollution, prepare for the consequences of climate change, and speed the transition to more sustainable sources of energy, in particular if Congress fails to pass federal climate change legislation;
- called on Congress to make the renewable energy Production Tax Credit permanent and refundable as part of a comprehensive corporate tax reform, with the goal of doubling non-hydro renewable electricity generation by 2020;

¹ I have drawn on Peter Fox-Penner’s excellent analysis of the significance of the SOTU address, especially for the assessment of specific targets and initiatives announced in that address. http://www.huffingtonpost.com/peter-foxpenner-phd/a-highenergy-state-of-the-union_b_2689389.html.

² http://www.whitehouse.gov/sites/default/files/uploads/sotu_2013_blueprint_embargo.pdf



- called for an “energy efficiency race to the top” and to cut in half waste over the next 20 years; and
- called on Congress to create an Energy Security Trust funded from oil and gas royalties, to help shift cars and trucks off oil.

Climate Change Legislation

The President has some more immediate (although perhaps not as important) legislation to pass, namely on gun control and immigration reform.

Comprehensive climate change legislation is unlikely due to opposition especially from Republicans in the House, but there are four caveats: (a) legislation could possibly be part of a tax reform aimed at resolving the fiscal gap, for instance with a carbon tax introduced to compensate for a decline in corporate income tax; (b) Congress may conclude that Executive Actions, and continued regulatory activity by the EPA, will create uncertainty that will discourage investment nationwide, including in sustainable energy; (c) the coal lobby is much weakened and may conclude that federal legislation is better than a protracted battle in the courts and in each state; and (d) adverse weather events could shift sentiment in the direction of legislation.

The most likely outcome is that those who favour legislation will have to hope for a change in the House of Representatives in the mid term elections.

Specific Targets and Initiatives

The doubling of the renewable electricity target is not very ambitious; that would amount to 8% of generation, which is already likely under existing state renewable portfolio standards (RPS) and may be less than what is actually planned. By comparison, in his 1979 Solar Message to Congress, President Carter set a target of obtaining 20% of the country’s energy from solar and other renewable sources by 2000. Nevertheless, in justifying his target, Obama stresses the economic benefits of renewable energy (50% of generation capacity additions over the past years), that the costs are falling quickly (60% for solar), and that the US needs to invest in this area in order to compete with foreign suppliers, especially China. There is no conflict between economic growth and environmental protection.

The Energy Efficiency target appears to come from the Alliance to Save (ASE) Energy 2030 Plan, which would reduce CO2 emissions by 30% if implemented. However, this would require concerted Congressional and Administrative efforts. For example, the ASE plan calls for better labelling of building energy use and incorporating these ratings into appraisals and loans: a great idea, but requiring heavy lifting to get it well established in the banking and real estate sector.

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If created, the Energy Security Trust would probably invest in three main areas to encourage a move away from oil: (a) fuel, vehicle and system R&D; (b) infrastructure co-funding for EVs; and (c) fleet conversion and other vehicle turnover incentives. This would accelerate the penetration of EVs and the need to create more storage options on the grid and to retool the distribution networks.

D. Conclusions

First, the main political objectives for the Second Term are: resolving the economic problems facing the country; strengthening US energy independence; and the creation of sustainable employment opportunities, especially in the “clean” energy business. Although the Obama Administration is convinced of the importance of dealing with climate change, the proposed measures are justified because they meet other policy objectives at the same time. Here are some examples.

- The President stresses the importance of domestic natural gas both as a cleaner source of energy (than coal) and as a contributor to energy independence. He pledges to facilitate drilling for oil and gas to meet both those objectives.
- He insists on the importance of investing in new sustainable energies (e.g. renewables) not only to deal with climate change, but also because these are the technologies of the future; the US has fallen behind its industrial competitors, notably China, and jobs are at stake.
- The effort to wean the US off of gasoline is justified both for reducing dependence on oil imports and for the contribution to reducing emissions.

Second, the specific measures identified in the SOTU address will have the effect of reducing CO₂ emissions. Indeed, the EPA regulations (e.g. on coal-based emissions), AB32 and shale gas developments may be enough on their own for the US to meet its international obligations to reduce greenhouse gas emissions 17% in 2020 by comparison to 2005.

Third, the overall impact on CO₂ emissions is unclear and not very ambitious, given the global challenges, the efforts being made elsewhere, and even by the standards of earlier US targets.

- Some of the specific targets and initiatives do not appear ambitious. For instance, the doubling of non-hydro renewable power by 2020 (to 8%) is modest by comparison to efforts being undertaken elsewhere in the world and to President Carter’s renewable energy target for 2000.



- Without comprehensive US climate change legislation, there is no long-term emission reduction target or CO₂ price trajectory to encourage efficient low carbon investment.
- The emphasis on individual initiatives (e.g. EPA regulations) imposes significant uncertainty that raises costs in particular industries and states, and could discourage investment, notably in low carbon technologies.
- The low prices of natural gas are not sustainable and if they rise to \$5-7/MMBTU, as expected by my colleagues at the Oxford Institute for Energy Studies, then coal may well replace natural gas in the power sector, at least for much of the existing plant.
- The absence of legislation also makes it less likely that the US will be able to lead in global negotiations: for any global treaty to pass the Senate would require a 2/3 majority, which is very unlikely if there is no comprehensive US legislation that is consistent with the global agreement. In that case, progress in global climate negotiations will continue to require other countries to lead.

Finally, in spite of this rather pessimistic assessment, it is worth keeping in mind that US climate legislation might be enacted because of these factors:

- The fiscal deficit: a CO₂ tax could help to resolve that, for instance as part of a tax-neutral reform of corporate taxation.
- The weakening of the coal lobby: the latter may seek a legislative solution to the debilitating uncertainty facing the sector.
- Mid term elections; these could change the balance of power in the Congress, leading to legislation.
- The weather: even though it is very difficult to demonstrate a connection between specific weather events and climate change, public and political support for climate change legislation is certainly more likely following major climate events.