CLIMATE CHANGE TALKS – THE ROCKY ROAD TO PARIS

By Michael Liebreich

Chairman of the Advisory Board

Bloomberg New Energy Finance

Albert Einstein once said that doing the same thing over and over again and expecting a different outcome was the definition of insanity. How then are we to view the continuing attempts of the climate community to corral the world into a binding deal on greenhouse gases?

This December sees the fifth anniversary of the UN's COP15 Copenhagen Climate Change Conference. The great and good gathered together to sign climate change's death warrant. Newly-minted President Barack Obama had noted his inauguration as "the moment when the rise of the oceans began to slow and our planet began to heal". Former Prime Minister Gordon Brown proclaimed we had "50 days to save the world and no Plan B". Expectations could not have been higher.

Sadly, it turned out the world had other priorities. Developing countries refused to sacrifice their growth prospects on the altar of Western green sensibilities. Developed countries proved strangely focused on not disappearing down the plug-hole of the financial crisis. The apparent academic sharp practice revealed in the Climategate emails did not help.

At Bloomberg New Energy Finance, we were not surprised by the failure of Copenhagen. At the time I wrote "The attempt to shoehorn all this complexity into a one-off, big bang negotiation, followed by 50 years of implementation, was misguided from the start."

The climate establishment's approach to negotiations is predicated on the belief that climate change is a "tragedy of the commons", a prisoner's dilemma in which no nation will take any action because each is scared of acting alone. In this world-view, only a central authority can enforce action and save the players from themselves – hence the slavish belief in the central role of the UN. Chris Huhne, former UK climate and energy minister, summed up this view in 2011, saying: "A global deal covering all major economies is not a luxury. It is not an optional extra. It is an absolute necessity."

Yet in the real world, what we see is significant climate action being taken not only by individual nations, but by all sorts of other actors: municipalities, states, individuals, businesses, sectors, all are taking action. There are bilateral deals, multilateral actions in all sorts of forums. Is it enough to limit climate change to 2°C? Not yet. But it is enough to demonstrate that a top-down deal is far from the be-all and end-all of climate action – indeed that it may not be needed at all.

Institutional conditions

As I wrote in a 2007 white paper, "Negotiations over climate change take place repeatedly over a period of decades – they started before the Earth Summit in Rio in 1992 and will continue far out into the future." Once you see climate negotiations as a repeated prisoner's dilemma, rather than a one-off game, everything changes. Winning players will not be those who free-ride on the efforts of others – because they will be excluded from the family of trading nations – but those that cooperate to solve the problem. In a perpetual climate negotiation, the UN should stop pretending it is the world's policeman and judge, and instead devote its efforts towards coaching countries to be "nice, retaliatory, forgiving and clear," the winning strategy for repeated prisoner's dilemmas, identified by Robert Axelrod, in his seminal 1984 book, "The Evolution of Cooperation".

Nobel Prize-winning Elinor Ostrom's 1994 work "Rules, Games and Common Pool Resources" laid out a set of institutional conditions under which tragedies of the commons can be avoided without heavy-handed and often ineffective intervention from central authorities. It is ironic that she won the Prize in 2009, the year of Copenhagen. The climate community would have done well to have taken time out to read it. Faced with the debacle of Copenhagen, on top of the evolving train-crash that was the Kyoto Protocol, a rational person might have suggested a pause, a time-out to rethink the whole structure of climate negotiations.

Instead the Nabobs of Climate closed ranks, in defiance of Einstein. The Rio Framework Convention, Berlin Mandate, Bali Road Map, Kyoto Protocol, Gleneagles Declaration and Copenhagen Accord were joined in short order by the Cancún Agreement, the Durban Platform and the Doha Gateway. I stayed away, called for a modern-day Oliver Cromwell to "stand up and say to the assembled negotiators and politicians: You have sat too long for any good you have been doing lately... depart, I say; and let us have done with you. In the name of the planet, go!"

What I was seeing was the clean energy sector relentlessly driving its costs down and its volumes up. As an entrepreneur myself, I have a bias for action and a preference for doers over talkers. I'll back business leaders like Elon Musk, David Crane, Tony Fadell, Alex Laskey, Ignacio Galán, Eddie O'Connor, Wang Chuanfu, Tulsi Tanti, Juliet Davenport, Wandee Khunchornyakong, Jeff Immelt, Zhang Yue, Dick Swanson and Liansheng Miao over a multilateral gaggle of politicians and civil servants every time. Technological development, the economics of experience curves and financial innovation are doing more each month to reduce emissions than the UNFCCC has achieved in 20 years.

I threw myself into the work of Sustainable Energy for All, which was not waiting for a global deal to help those without power gain access to cost-effective clean energy solutions. I developed an idea for a Sustainable Energy Free Trade Area (SEFTA), aiming to bring together a group of countries interested in lowering tariffs on clean energy products and services, agreeing technical standards, and demolishing fossil fuel subsidies. As I write this, a negotiation is kicking off under the auspices of the World Trade Organization on an Environmental Goods Agreement. SEFTA became SETA, then SETI and now a real live free trade negotiation between the EU, USA, South Korea, China and nine other countries representing 86% of global trade in environmental goods.

The UN climate summit in Cancún saw the triumphant announcement of the Green Climate Fund to handle "a significant proportion" of the $100bn promised to developing countries in Copenhagen. Instead, to the anger of many insiders, I suggested what was needed was a "Green Climate Finance Framework", rather than a single fund that would struggle to raise significant funds from donor nations. Last year I launched Finance for Resilience, an accelerator programme, working in close cooperation with the Climate Finance Innovation Lab, which uses the BNEF network to identify and drive forward the most promising ideas to bring incremental investment into clean energy. Candidate ideas must each have the potential to attract $1bn per year; the first six were selected earlier this year and are already making strong progress. Five years after its announcement, the Green Climate Fund has yet to distribute a single dollar. Even if it raises its target of $15bn this year, it will be just another player in the climate finance world – or, as one could call it, part of an emerging Green Climate Finance Framework.

Humpty Dumpty

Over the years after Copenhagen, the climate negotiators worked relentlessly to put the Humpty Dumpty together again. And by some measures they succeeded. By Doha in 2012 they had settled on a new deadline to save the world. By 2015, they agreed, there would be a new deal to replace Kyoto. They had not decided what it would look like, but they agreed that it would come into effect in 2020 and have "legal force". The UN Secretary General, Ban Ki-moon, has joked that having "agreed to agree", countries now need to drop one word and just "agree". And they need to do it by COP21, which takes place in Paris in December next year.

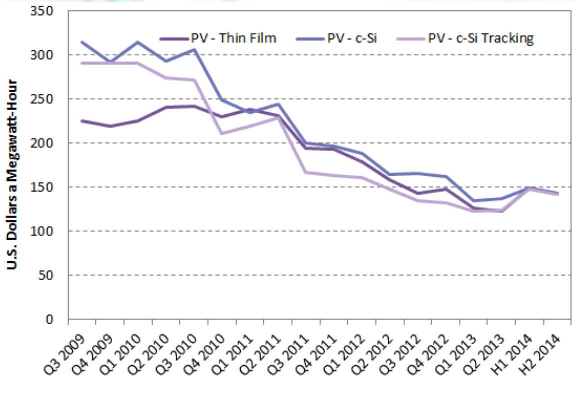
The UN Secretary General was determined this time that heads of government would be involved before the final weekend of negotiations. This September he is hosting a Climate Summit in New York for leading political figures, along with leaders from business, finance and civic society. President Obama and Chinese Premier Li Keqiang are expected to attend, though Germany's Angela Merkel and India's Narendra Modi have sent excuses. Participants are expected to announce significant new pledges in eight "Action Areas": agriculture, cities, energy, financing, forests, pollutants, resilience and transportation.

This is the new Alice-in-Wonderland world of climate negotiations: everyone gets to make voluntary pledges in 2015, which are then given "legal force", but not until 2020. Presumably, like Canada under the Kyoto Protocol, if a subsequent government does not like the pledges a predecessor has made, it can simply renege on them. But for the moment, all eyes are on the prize, and one doesn't question the process. Which of course begs the key question: is Paris 2015 any more likely to be successful than Copenhagen 2009?

Let's take a look at what has, and what has not, changed since Copenhagen.

First the science. Copenhagen relied on the IPCC's Fourth Assessment, published in 2007, which was riven with controversy after the leak of the Climategate emails and the discovery of some sloppy drafting errors. The IPCC's Fifth Assessment, published this year, is an altogether more robust affair. It broadly reaffirms the conclusions of the Fourth Assessment, beyond a modest reduction in the expected range of equilibrium warming for a doubling in atmospheric carbon: from 2°C to 4.5°C in the Fourth Assessment to 1.5°C to 4.5°C in the Fifth. The "hiatus", or pause in warming since the very warm year of 1998, so much trumpeted on climate sceptic blogs and in right-leaning newspapers, is a statistical irrelevance. As Richard Muller, the physics professor who heads the partially Koch-funded Berkeley Earth initiative puts it: "the last few years appear to show an end to warming, even a drop. This 'pause' in global warming is statistically apocryphal." The science remains as unequivocal about the need for greenhouse gas mitigation for Paris as it did for Copenhagen.

Levelised cost of electricity has fallen for solar photovoltaics



Source: Bloomberg New Energy Finance

Second, let's look at mitigation technology. Here a lot has changed since Copenhagen. The cost of PV modules has dropped by 80%, to the point where solar is cheaper than daytime retail power prices in increasingly large swathes of the world. The cost of wind power has dropped by 15%, making it the lowest-cost form of new electricity generation in many places. Energy efficiency has started to kick in too: most developed countries have seen almost no increase in energy demand since 2006, even as they have recovered from recession. The world has not noticed that the US's imports of oil have dropped nearly twice as much because of improved vehicle efficiency and reductions in miles driven as they have because of unconventional oil. The combination of energy efficiency and unconventional gas, meanwhile, has enabled the US to retire coal-fired power stations at a pace far ahead of anything the negotiators could have dared commit to in 2009. It's not all good news. The so-called nuclear renaissance, which was gathering momentum five years ago, was brought to a shuddering halt by the Fukushima accident, and carbon capture and storage has effectively failed to launch. Biofuels and biomass are behind, though still showing promise for selected use cases. But electric vehicles are far ahead of anything expected in 2009 and the smart grid is on track, as part of the wider trend towards smart cities and the Internet of things.

One of the main reasons that Copenhagen failed was that, when it came to looking down the barrel of an emissions cap, too many leaders realised they had no idea how they would meet any commitment they made. Jeffrey Sachs and a team at the Sustainable Development Solutions Network have been working with teams from 15 major economies to describe potential Deep Decarbonisation pathways. Paraphrasing their conclusions, it is now at least possible to imagine high-performing national economies, consistent with a global 2°C warming pathway. No country is on track, and existing technologies and business models will not get us there. But we are in much better shape on this score than in 2009.

Third, the global economy. Copenhagen took place against a backdrop of economic panic. It was only in September 2008, just over a year before, that Lehman Brothers collapsed in the wake of the sub-prime disaster. Developed world countries were flooding their economies with money, but it was becoming apparent that they could not do so forever. Greece's bond rating was downgraded by two ratings agencies during the actual conference. The southern European fiscal crisis was looming. The developing world was weathering the storm better, but it was not clear that this could continue indefinitely. The BRIC economies charging ahead at 7-10% growth per annum were not about to shoot any of their horses, and slower developing countries were only interested in financial support which the developed world was simply not in a position to deliver. Fast-forward to the present, and China's growth has slowed, but there has so far been no hard landing. Modi's election in India has unleashed a surge of optimism, and Abenomics in Japan has at last stirred the Japanese economy. Seven of the world's fastest-growing countries are now in Africa, according to the Economist, unthinkable back in 2009. So it looks like the world may once again have the economic stomach to take some climate medicine.

Fourth, finance. Although the world seemed awash with cheap money in 2009, in reality it was not making its way to infrastructure and energy projects. Central banks were using it to prop up the debt markets and allow commercial banks to repair their balance sheets by lending it out at a premium. The effective interest rate for clean energy projects was no lower in 2009 that it had been before the crisis.

Markets

The period from 2004 to 2008 had seen clean energy investment surge from $55bn to $195bn worldwide, but this was a new phenomenon and not well understood. This year will be the fifth year in a row with clean energy investment over $250bn, and although down 20% from the peak of $311bn in 2011, we are now seeing totals beginning to climb once more. Because of the drop in clean energy costs, $250bn in 2014 buys almost double the number of GW of clean energy that it did in 2009.

The public equity markets have opened again to clean energy companies, after being all but closed for five years. The sector has attracted new investors, from Warren Buffett to pension funds, insurance companies and sovereign wealth funds. New vehicles called "yieldcos" are bundling up portfolios of assets and offering them to some of these new investors. And in the last 18 months the debt markets have suddenly discovered the virtues of "green bonds", quoted debt instruments whose proceeds are targeted for some sort of climate, clean energy or sustainability-related uses. Until 2012 the market averaged less than $3bn per year; 2013 saw $14bn of green bonds being floated, and this year could see as much as $45bn. It is not impossible to see this new financial tool directing $500bn per year into clean energy and infrastructure within a decade.

Having survived its near-death experience, the world's capital markets are lifting their collective head and sniffing the wind. What they are smelling is starting to spook them: they are starting to understand the sheer scale of assets which might have to be written off if the world's leaders commit to decarbonisation; and they are seeing a divestment movement girding its loins for battle if their leaders do not act. The world's financial system is nothing if not focused on self-preservation. If the herd makes off in the direction of a low-carbon future, it will trample all beneath its hooves.

That leaves the fifth and final factor, and of course the toughest one to call: politics. In most countries of the world, support for a climate deal is as strong now as it was in 2009. But then most of the countries of the world are irrelevant. Any deal is going to hinge on the decisions of the major emitters.

China is more likely to do a deal in 2015 than in 2009. It has been slowly getting its energy productivity back on track after a decade-long, growth-driven anomaly which ended around 2005. Recent developments show it might be able to extract economic quantities of shale gas from its undoubtedly huge reserves. And it is facing the reality of anyway having to demolish the coal-fired power stations that are causing "airpocalypse" in so many of its cities. The US, for its part, has reduced its emissions by more than any other major economy in the past decade, and it can see the way to continue this trajectory without crippling its economy. Its domestic politics make it hard to see any climate treaty ever being ratified by Congress, but that may in practice not matter if its negotiating partners understand any deal would be honoured anyway. This time around, Europe is a big unknown, as it struggles with a stalled economy, resurgent nationalism and unprecedented levels of climate scepticism in countries like the UK and Poland. India has been less than constructive throughout the history of the UNFCCC climate negotiations, and it remains to be seen whether Modi's government will take a more business-like and less populist tone.

Canada, Australia, Russia and Saudi Arabia have come to understand in the past five years that a deal is fundamentally against their interests. They will play any wrecking card they can, while trying to appear cooperative. In normal times their influence alone might be enough to scupper a deal. But these are not geopolitically normal times. Instability in the aftermath of the Arab Spring, the gathering confrontation between Saudi Arabia and Iran, Qatar's apparent adventurism in funding extremism, Russia's annexation of Crimea and fomenting of violence in Ukraine – all this sends a wave of urgency through the world's push for a post-fossil-fuel future, one which Paris 2015 negotiators may be able to surf.

Looking ahead

In summary, the science, technology, economics, and finance all point to a deal being more likely in Paris in 2015 than in Copenhagen in 2009. The politics, however, remains hard to call: in much of the world it has improved, in a few countries it has worsened considerably.

For what it is worth, I predict a deal will be struck at COP21 in Paris. It will be more significant than the largely meaningless Copenhagen Accord. But it will not be enough to put the world on track to a 2°C future. That will have to wait for COP22, COP32, COP42 and beyond.

After Copenhagen, it became fashionable to argue for a combined "top-down and bottom-up" approach to the climate challenge. My concern in 2011 was that "the more time, energy and credibility is wasted pushing for a binding, top-down deal on emissions, the less we have to devote to the sort of initiatives we know work." Any negotiation structured around an explicit carbon budget will be by definition zero-sum. It eliminates the possibility of Pareto-optimal solutions, which can only be built around comparative national advantage, free trade, early action and the power of the experience curve. I remain an unashamed and almost unalloyed bottom-upper.

Any deal in Paris will be a politically correct but uneasy combination of top-down and bottom up. I continue to believe that while global dialogue is vital, a global deal is unnecessary, and the very push for one is counter-productive. I am off to New York next month for the UN Secretary General's Climate Summit to find out.

ABOUT US

Contact

sales.bnef@bloomberg.net

Copyright

Disclaimer