

THE CLIMATE CHANGE ACT

A leap of faith that put the UK in the climate vanguard

It's 10 years since the UK's ground-breaking Climate Change Act was given Royal Assent. To mark the occasion, the EI brought together a 10-strong virtual panel of influencers to give their thoughts on this fundamental piece of climate change legislation.

The UK's historic Climate Change Act (CCA) is 10 years old this month. To coincide with this landmark anniversary, the Energy Institute (EI) convened a 'virtual panel' of 10 influential figures who were in leading positions at the time – six of them now Fellows of the EI – to reflect on how the Act came to pass, what it has meant for the UK and the prospects for the future.

The result, part of the EI Views series, is a social history from diverse perspectives of one of the most ground-breaking pieces of environmental legislation of its day.

For full responses from each member of the panel, head to the EI website (bit.ly/2yDzPqr). Here, we present an edited summary of key insights and perceptions of the Act's 10 years – and its future.

Reflections on 2008

How significant was the passing of the CCA in your view, and why?

Jim Skea: It was a watershed. The fact that many organisations (including the EI!) are marking the tenth anniversary of the Act is a clear sign that it has had an impact. At the time, it was striking because of its ambition – an at least 80% reduction in emissions, the binding legal framework and the role of an independent committee.

Richard Black: It's hard to exaggerate the significance... The first country anywhere in the world to set an emissions reduction target in law, the establishment of an independent advisor and scrutineer, successive carbon budgets – these lie at the heart of the Act, and are the tools that have made the UK's decarbonisation path smoother and more logical than in many other nations.

Even more impressive, perhaps, is the huge support that it commanded and still commands across Parliament and across society. Whether as journalists we truly appreciated and reflected its significance at the time, I'm not sure – I think it's much easier to appreciate now that we have 10 years of real-world experience to look back on, and can see not only the Act's good sense but also its effectiveness.

Ed Mayo: The act was the Great Reform Act of the climate era. There were, are and will be a multitude of initiatives and actions around climate change, but this was the one that will make the school history e-books of the future, because it was an innovation in democracy – trying to shape how successive governments and elected leaders could act in line with climate science over time.

Steve Holliday: [The Act] is a great example of government doing what it should do – setting the visionary overarching objectives, within which industry and others can act... and unusually, it expressly sets out to bind the hands of future governments.

Let's not forget – none of us who were around at the time of its introduction will be involved by 2050. It'll be our children and their children finishing off the job, and reaping the ultimate benefit of averting the worst impacts of climate change.

What were the factors that led to its overwhelming adoption by Parliament? Did parliamentarians fully understand its implications?

Charles Hendry: Parliament was overwhelmingly united in recognising that action was needed

urgently to tackle climate change. The small amount of opposition was coming from people who did not accept the 'climate science' rather than people who questioned the timescale or the level of the ambition. Few parliamentarians are scientists and most therefore were guided by what the leading academic figures were saying.

Juliet Davenport: I think the overwhelming thought was that collective action had to happen, and it was a rare time you saw politicians come together to do the right thing. I don't think anyone knew what impact it might have, and all the implications, but sometimes good things come from a leap of faith.

Simon Virley: The growing scientific evidence about the need for action on climate change was an important factor and a feeling that the UK needed to take a leadership role. It is an interesting thought experiment to think about whether it would have passed with so little opposition post the financial crash. The timing worked in political terms.

Craig Bennett: Civil society came together. While the concept of the CCA was originally conceived of by Friends of the Earth, which then launched 'The Big Ask Campaign' to build support for it, it wasn't long before there was a very broad coalition of organisations mobilising behind it. And this involved a lot more than just adding names to email petitions; tens of thousands of people met their MPs face to face, in Parliament and in constituency surgeries, to call for a CCA. MPs felt this groundswell, and the vast majority reacted accordingly.

Did you have any misgivings at the time? Either about the level of the 2050 target or the framework or process designed to achieve it?

Craig Bennett: At Friends of the Earth, we felt sure that the 2050 target would have to be strengthened at some point in the future, but it was the best we



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could get at the time. We would have preferred annual emission reduction targets because we were concerned that five-year carbon budgets would stretch beyond general election cycles and allow politicians off the hook.

Simon Virley: I think it is fair to say that the destination was chosen without any clear road map on how to get there. That has come later through the work of the Committee on Climate Change (CCC) and others. But sometimes that is the role of political leadership. It would have helped if politicians (of all parties) had been more willing to be honest with the public about the costs (and benefits) involved in making this transition.

Richard Black: I suppose the main misgiving I had at the time was whether successive governments would actually bother to meet carbon budgets, because when you looked at the 'legally binding' element, there weren't really any sanctions. But attempts to get it repealed have been remarkably impotent.

The view from 2018

Marks out of 10 please! Ten years on, has the CCA lived up to its ambition? Has decarbonisation to date progressed as you expected? Where have we been successful and where is progress disappointing?

Jim Skea: Seven. Decarbonisation has progressed faster than expected but it has been unbalanced. It has been very successful in the power sector but there has been little progress elsewhere – even backwards in the case of investment in household energy efficiency. In retrospect, the second and the third carbon budgets weren't ambitious enough. They are being met all too easily which means that government can take its foot off the accelerator.

Charles Hendry: In retrospect, the Act was important, but the individual policies to drive low carbon investment have been more important. In 2010, when just 5% of electricity came from renewables, many people were saying that it would be impossible to deliver 30% of our electricity from renewables by 2020, but in fact we are broadly at that level already.

Electricity Market Reform and other policies have brought much more investment into low carbon projects than most considered feasible at the time the CCA was introduced. But without the Act, I have no doubt the pace of progress would have been slower.

Juliet Davenport: I would give 8/10 on electricity, 3/10 on heat and 2/10 on transport. Renewables have transformed the electricity market and have been the big success. Emissions are down 43% from the baseline set in 1990, and the vast bulk of that has been as a result of the changes in electricity generation.



The environmental campaigner – Craig Bennett

In 2008: Director of the Corporate Leaders Group on Climate Change, now: Chief Executive of Friends of the Earth



The electricity grid boss – Steve Holliday FEI

In 2008: Chief Executive of National Grid, now: President Elect of the Energy Institute



The consumer champion – Ed Mayo

In 2008: Chief Executive of statutory watchdog Consumer Focus, now: Secretary General of Co-operatives UK



The regulator – Alistair Buchanan CBE

In 2008: Chief Executive of the Office for Gas & Electricity Markets (OFGEM), now: Non-Executive Director at Thames Water



The journalist – Richard Black

In 2008: BBC Environment Correspondent, now: Director of the Energy and Climate Intelligence Unit (ECIU)



The oil and gas chief – James Smith CBE HonFEI

In 2008: Chair of Shell UK, later: Chair of the Carbon Trust



The scientific adviser – Professor Jim Skea CBE FEI

In 2008 and now: founding member of the Committee on Climate Change, also on the International Panel on Climate Change (IPCC)



The renewables pioneer – Juliet Davenport OBE HonFEI

In 2008 and now: Chief Executive of Good Energy



The civil servant – Simon Virley CB FEI

In 2008: Director in the Department of Energy & Climate Change (DECC), now: Partner and UK Head of Energy at KPMG



The politician – Charles Hendry HonFEI

In 2008: MP and Shadow Energy Minister, later: Energy Minister in Coalition Government

Heat has been slow-moving and there have been few practical solutions coming through. There has been very little on transport. I think we're all hoping to see acceleration in both these areas to catch up with the success of electricity.

James Smith: We have made very good progress in decarbonising electricity. But we are now having to confront the more significant and challenging areas of heat and transport. It's not as easy as with the electricity grid. Solutions exist, but there are major infrastructure implications. And we have to ensure that consumers are offered solutions they find affordable and that work well.

Alistair Buchanan: Irrespective of the individual policy decisions I would argue that the real success lay in the intangible... the CCA went into the DNA of the policymakers and key industry stakeholders. There will be some who are disappointed, but the policymakers just about got the market disturbances – caused by generous subsidies – right.

Richard Black: You cannot seriously look at the CCA and conclude it has been anything other than a huge success. Structurally and functionally it works. The UK has the best record in the G7 in terms of decarbonising while growing the economy, and it's the only G7 nation with a CCA: not a coincidence.

Steve Holliday: For electricity – 10/10 – thus far. The sequencing has been right. I always thought electricity could and would move ahead first and fastest. It was accepted it was the biggest contributor – in particular as the enabler of decarbonisation elsewhere in the economy.

In some ways we were lucky – lots of very old coal-fired power plant needed replacing and so that investment needed making anyway. But choices were also made along the way that have been the makings of a great success story. Getting coal off the system sooner than would otherwise be the case and subsidising solar and offshore wind for instance.

On transport I think we're still in the foothills, but in the last few months the signals coming out of Whitehall about phasing out petrol and diesel engines and rolling out recharging infrastructure have been encouraging. So a solid 6/10 for transport. But efforts so far on

heat gets a 3 from me. I don't think many people would disagree on that.

How strongly has the CCA influenced changes in behaviour and decision making by government, industry and consumers?

Craig Bennett: The CCA has provided business with the long-term confidence to scale up investment in low carbon technologies, but this has – at times – been eroded by a chaotic chopping and changing of policy mechanisms in specific policy areas; such as around energy efficiency and renewables.

If and when our political leaders provide clear and consistent leadership on the need to tackle climate change, rather than mixed and contradictory messages and policies, then we will see far faster changes in behaviour.

James Smith: Tackling climate change means mustering the common will to change fundamentally parts of our economy and lives. Such change requires exceptional collaborative effort. The Act created a national focus for action.

Jim Skea: I think of the Act as having a cascading influence. Government responds to the carbon budgets, but industry and consumers respond to the specific measures that government puts in place to make sure the carbon budgets are met.

To what extent has the UK maintained its position as a global climate leader since the Act was set?

Jim Skea: Back in 2008, the UK was genuinely world-leading in terms of both ambition and the CCA framework. In 2018, I'd say the UK was running with the pack rather than ahead of it. Having an independent committee resourced the way it is, is still quite rare internationally. And the exit from coal, the most polluting fossil fuel, is pretty unique.

But other countries can be much more ambitious in terms of energy efficiency. And some, such as Norway, are more ambitious in setting targets for phasing out petrol and diesel cars. The Paris Agreement has upped the ante internationally and the UK is starting to blend in. But in terms of a governance framework, the CCA is certainly still world-leading.

Richard Black: The UK is undeniably a global leader if you look at the rate of decarbonisation, heading the PwC rankings for the G20. The same is true for diplomacy, where the UK continues to punch above its weight. Where it's failing is in some policy areas – notably energy efficiency where standards are already way behind some other European countries and falling further behind.

The Act itself is also due an overhaul in the light of the IPCC Special Report on 1.5°C, because the science is now clear that an 80% emissions cut by 2050 isn't



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The Climate Change Act

The UK's Climate Change Act 2008 is an Act of Parliament, passed into law on 26 November 2008, which legally binds the UK to reduce its greenhouse gas emissions by at least 80% on 1990 levels by 2050.

A final version of the Act was overwhelmingly voted for (only five against) by MPs in the House of Commons – with the 80% target revised upwards from a previous 60% goal, following scientific advice and pressure from the public and NGOs to increase ambition.

The Act provides both an end goal and a mechanism for keeping track of emissions reductions. It works by committing whatever government is in power to meet a series of five-yearly carbon budgets to maintain a pathway of emissions reduction towards the 80% goal by 2050. An independent watchdog and adviser, the Committee on Climate Change (CCC), was set up to propose the level of these carbon budgets, provide advice and analysis to government and to scrutinise its policies and progress.

The Act has been successful so far in lowering the UK's emissions, with the power sector undertaking most of the work. Emissions

have fallen 42% between 1990 and 2016, faster than the average rate in the G7. But more work is needed in the UK's transport and heat sectors – the UK is on track to meet its third carbon budget commitment, but is off course for the fourth (2023–2027) and fifth carbon budgets (where emissions must drop to total 1,725mn tonnes of carbon dioxide emitted between 2028 and 2032, or around a 57% reduction by 2030).

The CCC has criticised the government's recent Clean Growth Strategy as not being ambitious enough to reach the fifth carbon budget, and has recommended that additional measures and policies are implemented to make up for the forecasted shortfall in emissions reductions.

There is currently debate on whether to increase the ambition of the Act to move towards net zero emissions, in light of the latest science around the measures needed to keep global temperature rises to 1.5°C on pre-industrial levels. Claire Perry, Minister of State for Energy and Clean Growth, wrote to the CCC in mid-October to ask for advice on increasing the target from an 80% reduction to net-zero emissions. ●

adequate. Other countries have identified this and have used the best of the UK's Act to develop their own while including science-based net zero targets. So the UK isn't anymore in the absolute lead, but still very much in the vanguard.

Lessons for 2028 and beyond
As the carbon budgets tighten and the 'lower-hanging fruit' of easier emissions reduction measures run out, how can popular buy-in to the CCA's goals be maintained?

Ed Mayo: We can tighten up the nuts and bolts, on targets and sanctions, but the real challenge is not the advice but the action. The CCC is a backroom player when what we need, to command policy and political attention, is for it to be centre stage. In terms of public support, I am encouraged by the emergence of community energy – decentralised, co-operative and engaging people directly in the complex challenges of climate change.

Alistair Buchanan: Personally I would like to see another focus on arguing the merits for energy efficiency. I would also urge policymakers to keep it simple – the Green Deal initiative was just too busy and complicated.

Craig Bennett: I passionately believe that decarbonisation could be a lot easier, cheaper and faster than many people assume. Renewable energy technologies such as solar and wind (even offshore wind) have fallen in cost and have been deployed at far higher levels over the last decade than even the most optimistic predictions thought possible, for example. Similarly, the uptake of electric vehicles will become faster and bigger, because as the technology becomes mainstream it will become ever easier to overcome technological and cultural inertia.

So, I'm not sure that the 'low-hanging fruit' analogy is always right. In some circumstances, the first steps towards technological change may prove to be the hardest, and we may have taken them already.

Is the CCA consistent with the Paris Agreement? In the context of 1.5°C, should we be increasing ambition to net-zero emissions by 2050?

Juliet Davenport: It is generally acknowledged that the CCA was an ambitious commitment, but that absolutely should not rule out tightening our targets. As we start to see the real effects of extreme weather and consumers start to

call for action, that may need to become a given.

Simon Virley: The UK carbon budgets are broadly consistent with the Paris Agreement targets. The UK has shown great leadership on climate policy over the past decade and the 80% reduction in emissions by 2050 will be very difficult to achieve as it is. Any commitment beyond this towards 'net-zero' should, in my view, relate to a later date and be done on a multilateral, not a unilateral basis.

Ed Mayo: It is not clear that the Paris Agreement is entirely consistent with itself, but it shares with the Act an astute attempt to ratchet up policy action to the levels required over time. It makes sense both to reflect the Paris goals of net-zero emissions, temperature targets and to look at the true footprint of the UK worldwide.

Richard Black: Technically, the Act is consistent with the Paris Agreement because the long-term emissions-cutting target is 'at least 80%'. Also, the Agreement commits countries to net-zero emissions 'in the second half of the century', which is also consistent with the Act.

But we need to get real here. The UK pledged in the Paris Agreement to 'make efforts' to keep global warming to 1.5°C. As a developed nation it is committed to leading. With the IPCC concluding that the world needs to reach net-zero carbon emissions around mid-century, a UK net-zero target ahead of 2050 is really the only game in town.

How could Brexit affect the UK's continued progress towards its CCA targets?

Simon Virley: We have to maintain our co-operation and dialogue with our European partners on climate change, despite Brexit. We should look to stay in the EU Emissions Trading Scheme and the Internal Energy Market if at all possible. The UK played a central role in helping establish both and it would be better for both the UK and the EU if the UK was part of those arrangements going forwards.

Jim Skea: In purely legal terms, Brexit doesn't affect UK climate policy directly. The CCA has 'made in Britain' stamped all over it. But you have to be concerned as to how the mechanisms by which we deliver our ambition could be affected by Brexit. Will manufacturers of low-emission vehicles or wind turbine blades want to invest in

the UK? Will consumers be willing to pay to import energy efficient technologies as sterling dips in value? Will we pull in the skilled labour we need from Europe, one of the most energy efficient parts of the world?

Craig Bennett: Friends of the Earth is very concerned about the impact that Brexit will likely have on UK action on climate change. International cooperation is fundamental to tackling international environmental problems... Common EU regulatory frameworks have enabled the 28 member states of the European Union to take bolder collective action than they would be acting alone when worried about their individual 'competitiveness'.

What would your advice be to other countries now thinking about legislation to meet similar climate change goals?

Charles Hendry: Be ambitious in setting targets but be sure to have a 'roadmap' so progress can be measured along the way. Reassure the public that using renewable resources makes sense not just from the climate change perspective, but also for economic reasons and security of supply, reducing the dependence on imported energy.

Craig Bennett: Whenever action on climate change is proposed, the debate all too often focuses on the 'costs' of that action. But the reality is very clear; the costs of inaction on climate change are far greater. So it's a question firstly of 'choice': do we choose to invest trillions of dollars in old, polluting infrastructure, or do we choose to move on, and invest in clean infrastructure that brings a myriad of other benefits?

Richard Black: Some other countries have developed their own climate change legislation based on the UK's Act, which is a massive compliment. Some have found ways of going further – for example, going to annual rather than five-yearly carbon budgets, and putting duties on all ministries to cut emissions. The question then is really: what can the UK learn from these countries?

The overall message to other countries from 10 years of the UK CCA is: Just do it! ●

This is an edited version of full responses from our 10 panellists to 10 questions on the 10 years of the CCA. To read all the responses in full and access more analysis on the CCA and other aspects of climate change, visit bit.ly/2q4KGFE



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