HOUSE OF COMMONS

Business, Energy and Industrial Strategy

Oral evidence: Clean Growth Strategy/Outcomes of Bonn COP23, HC 596/597

Tuesday 28 November 2017

Ordered by the House of Commons to be published on 28 November 2017.

Watch the meeting

Members present: Rachel Reeves (Chair); Vernon Coaker; Drew Hendry; Peter Kyle; Rachel Maclean; Albert Owen; Antoinette Sandbach.

Questions 54 - 142

Witnesses

I. Claire Perry MP, Minister of State for Climate Change and Industry, Department for Business, Energy and Industrial Strategy; Pete Betts, Director for International Climate and Energy, Department for Business, Energy and Industrial Strategy; Tim Lord, Director for Clean Growth, Department for Business, Energy and Industrial Strategy.

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Examination of witnesses

Witnesses: Claire Perry MP, Pete Betts and Tim Lord.

Q1 **Chair:** Thank you very much, Minister, for coming today to give evidence to our Committee about the clean growth strategy and the outcome of the Bonn COP23. Thank you for bringing two directors from your department along. Perhaps you could introduce yourselves for the record, and then we will get on with our questions.

Claire Perry: I am Claire Perry, the Minister of State for Climate Change and Industry. I have Tim Lord, who is my director for clean growth, and Pete Betts, who is my international climate and energy director with me.

Chair: You are very welcome today.

Q2 **Rachel Maclean:** We are very keen to hear about the extent to which you felt that the Bonn summit made good progress towards meeting the agreements in the Paris agreement.

Claire Perry: It is my pleasure to give evidence to the Committee this morning. I am going to ask Pete to talk about some of the specifics, because Pete has been negotiating climate agreements for many years. My impression of my first COP, or Conference of the Parties—this is No. 23—was that it was all about process. We had the Paris agreement, which set out this very ambitious set of NDCs, with the aim of getting us close to the 1.5 degrees. We knew, post that, there would have to be a whole series of negotiations as to what that meant. How do you establish a nationally determined contribution? How do you agree on that? Do you agree independently? Do you have to agree all together?

The COP was a process of setting out how the conversations would be taken forward over the next year to the COP in Katowice next year. Because it was chaired by the Fijians, who are an important member of the Commonwealth and who we had helped with some of the funding for this, the phrase was "the Talanoa dialogue", which is a Pacific Islander phrase for a collaborative conversation and discussion.

I will let Pete talk very specifically in a moment, but I wanted to say that there was an underlying thread to the COP. After President Trump's announcement of the US withdrawing from the Paris agreement, there was a question: would this be a success? Would countries double down on their commitments and show that they are prepared to work together in a multilateral framework? From my various meetings with the climate Ministers from China, Germany, the United States, Canada and others, I got the sense that we are very committed to the Paris agreement; we think it is fit for purpose.

There was the biggest inflatable dome structure ever erected in Europe, done by a UK company. That was the We Are Still In coalition, which is a group of American states, mayors and industry groups saying, "We are still absolutely committed to reducing our greenhouse gases". That was a great thing to see.

Pete Betts: As the Minister said, a key objective was maintaining political momentum, but it was in the nature of the cycle of the COPs that this was never going to be a really big COP, because a couple of really big tasks were assigned by Paris to 2018. Those two tasks were: agreeing the ruleset for Paris, and agreeing a process to raise ambition or initiating the process of raising ambition in 2018. Because of this dynamic that you see in all these major negotiations, where nothing is agreed until everything is agreed, you do not agree elements of the ruleset piecemeal. Essentially, there was a lot of progress behind the scenes, but the key package on the rules will be next year.

Q3 **Rachel Maclean:** We heard last week from witnesses who were all unanimous that enough progress had been made for that rulebook to be in place. Is that also your view?

Pete Betts: It is my view. As the Minister said, I have done this for many years and what tends to happen is that, in the formal process, you will have a long and unwieldy text until quite late. Lots of progress happens in smaller groups and in processes like the so-called Cartagena dialogue, in which you begin to see where landing grounds or compromises might be, but they do not really come together until the endgame of the COP, where the decisions are to be made.

Claire Perry: We took the smallest delegation of any G7 country to the COP, because it is quite an unwieldly process. I have to say, I was very struck by the regard in which the world holds our climate negotiation abilities. We are seen as a fundamental leader and part of this process, and we should all be really proud of the negotiating team.

Q4 **Rachel Maclean:** We talked a bit about the US withdrawing. Can you give us an assessment of how that will affect the talks going forward and, particularly, how it impacts on the UK's role in the talks?

Claire Perry: To put it in a factual context, the US accounts for about 12% of global emissions. The statement about withdrawing cannot be delivered until 2020, given the process of withdrawal. We had a bilateral meeting with the US negotiating team, who are very experienced, and what we got from them was a strong commitment; they are absolutely committed to reducing their greenhouse gases. They understand how important it is. The non-federal actors were there, noisily and assertively making the case that they would continue to do their bit.

My understanding is that the US had been incredibly important in forming the Paris agreement. John Kerry in particular had done a very good job. My sense was that we were all committed to making this work. We expressed again our disappointment to the US team, as the Prime Minister did in her speech at the UN General Assembly in New York. We expressed the invitation and hope that they would re-join and find a way to come back to us. But we all felt that we need to get on with our own commitments, and co-operate and collaborate in a way that delivers what we want, which is holding down the temperature rise.

Q5 **Rachel Maclean:** Do you see China taking more of a leadership role in the negotiations in future?

***Claire Perry*:** I will let Pete talk, because the Chinese climate negotiator is an old China hand in these proceedings. If I can refer the Committee to page 32 of the clean growth strategy, which I carry around with me like my fourth child, we want to point out the level of ambition for both China and India. China has committed to cutting its carbon emissions per unit of GDP by 60% to 65% by 2032, and having 10% of its manufacturing output being either low or zero emissions. It is doing a lot. It is spending a lot of money, both because it has a clean air crisis in many parts of the country, and because it sees the economic opportunity globally from this transition. I think its actions are going to deliver the emissions reductions we need. I did not get the sense from my meetings that it was looking to take a leadership role in the climate negotiations, but I will defer to Pete's expertise on that.

***Pete Betts*:** That is right. We would distinguish between what countries are doing domestically to reduce their emissions and how they behave multilaterally. China, like every other country, has recommitted since the Trump withdrawal to delivering its commitment, and it is taking a lot of action domestically. Multilaterally, we do not see it yet being ready to step up into a leadership role. China, the EU and Canada convened a meeting in September last year to have a political conversation about where the world was, but it will still be a big step for China to play the kind of active, diplomatic leadership role that the US played in the run-up to Paris. It often still takes a traditional hard-line position in negotiations, whereas we would have a bifurcated system of accountability, with one set of rules for so-called developed countries and another for so-called developing countries.

***Claire Perry*:** In our bilaterals with both China and India, they were very keen to emphasise that they feel they will over-deliver on their targets, given the rate of progress in their domestic activity, which was really encouraging to hear.

Q6 **Rachel Maclean:** Is there a leadership vacuum in these talks internationally?

***Claire Perry*:** The coalescence of Europe in this space, particularly led by the UK and France, and interestingly joined by Canada, is creating a multilateral momentum. When we launched the Powering Past Coal Alliance, which was something that Canada's Climate Minister and I cooked up over a cup of coffee in New York because we, like them, are phasing out coal, we were really impressed with the level of: "This is what we want; now we need to work together". No, there is not a vacuum. In a way, there is a reaffirmed multilateral commitment, which is perhaps a little more unwieldly to manage, but really exciting. Given the UK's outward-reaching conversations at the moment, particularly with colleagues in the Department for International Trade, it means that there is a lot of opportunity for us, diplomatically and economically.

Q7 **Rachel Maclean:** We heard from witnesses on the Talanoa dialogue last week. They were unanimous that they thought enough progress had been made on the organisational arrangements, but they were concerned it would not necessarily lead to countries increasing their emissions reduction pledges sufficiently. What is your view on that?

***Claire Perry*:** It was not a conversation about pledges, so the proof of that pudding will start to become obvious as we get through to 2018 and through to 2020, when the numbers are required. Back to your question about a leadership role, showing that we are making great progress on our emissions and that we are celebrating what other countries are doing will help us lift that ambition. I forgot to mention that we were joined by the First Minister of Scotland and representatives of the Welsh Government, and it was very good to see that strong UK presence there. Indeed, the First Minister of Scotland made a very helpful speech about how we are all in this climate thing together, which was really welcome.

Q8 **Antoinette Sandbach:** Minister, I must apologise, because I will have to leave at 10.30. That will not be in response to anything you have said to us. You have spoken about the UK's leadership role. We had some very good news at that conference: the UK made a commitment to double its funding for the Intergovernmental Panel on Climate Change. President Macron made a similar commitment in a very high-level speech, and BEIS announced it via a tweet. Why was that very strong commitment not celebrated more widely at the conference and given greater prominence?

***Claire Perry*:** I will accept the criticism on that. I referenced it in a speech. It was something that we had worked hard with other European colleagues to get them to do. We also announced the Powering Past Coal Alliance, £300 million of climate finance commitments and new forest initiatives, so there was a lot of good stuff. You raise an important point. I was struck, when I came into the role, by just how well we had done in this area, thanks to successive Governments and all political parties. I rather felt that we had hidden that light under a bushel for too long, and it was perhaps because we had not realised the opportunities from clean growth.

We have been trapped in a narrative about energy bills, which clearly is a very important topic and we have to make sure our industries are competitive. But one of the important myths that I wanted to try to bust with the clean growth document was that, while the investment from policy has gone up, so all consumers are contributing to that, because of energy efficiency, household bills have gone down by £14 on average over the last four years.

We have been too shy. It was very encouraging when the Prime Minister spoke about climate change at the UN General Assembly, and hopefully many of us will be able to go to the Paris summit, the Macron summit, on 12 December. I am determined to shout as loudly as possible from the rooftops, not only because it is really important internationally, but because I want the UK's leadership to result in investment, exports, jobs and opportunities right across the UK.

Q9 **Antoinette Sandbach:** In your role of shouting loudly about what the UK Government are doing, could you also make sure that the £177 million for sustainable infrastructure in Latin America is on the BEIS website?

Claire Perry**:** It is a brilliant question because, again, for whatever reason—I think it is because, quite rightly, we religiously play by the ODA rules that say you cannot link trade and aid—we have been shy at introducing British companies that might be able to export due to the opportunities created by investment through the climate funds.

Only last week, I had a meeting with the head of the Inter-American Development Bank, who told me that, when the Spanish made a similar investment, the Spanish Government embedded two Government members into the bank to find opportunities for Spanish companies as a result of those contracts. I do not know if that is within the ODA rules but, yes, we are determined not only to publicise these opportunities, but to make sure that companies who might benefit from them are aware of the investments we are making.

Q10 **Antoinette Sandbach:** If you are not publicising it on the website, British companies will not even know, let alone members of the British public. We are doing fantastic work in this area. Is there a particular reason why the UK Government are downplaying it? Are you seeking to downplay these important commitments or is it just a communications issue?

Claire Perry**:** As I say, we have been shy about making a lot of noise about this progress, for fear of some of the headlines that might occur. My sense is that we are always shy to talk about our commitment to overseas aid. If you can show people that it is resulting in great export opportunities, inward investment and jobs and prosperity across the UK, that is a good thing. It is a very fair criticism. It has apparently never been the case, under successive Governments, that we know which the biggest green exporting companies in the UK are. That is wrong and it is something I am working very rapidly to fix.

Q11 **Antoinette Sandbach:** Is there a concern at the department that headlines may be generated that misinterpret our commitment to climate change?

Claire Perry**:** The experience of the COP and the response to the clean growth strategy, which probably uniquely in the history of politics attracted good headlines in *The Guardian*, *The Independent* and the *Daily*

Express, shows that now is probably a good time to be talking about the opportunities from clean growth and, moreover, following up on them. That is what the Department for BEIS and the Department for International Trade exists to do, which is to help British businesses.

Antoinette Sandbach: I will support you absolutely in anything you can do to encourage energy efficiency, Minister.

Q12 **Albert Owen:** Good morning to you, Minister, and to your team. If I can go on to COP23 and Brexit, how do the Government plan to participate in UN climate change negotiations once we leave the European Union?

***Claire Perry*:** It is a very good question. The reassuring news is that our domestic ambition is higher than our ambition would be under the EU effort share. We have an EU effort share, in which all countries have contributed to do their bit. Our bit is lower under the EU agreement than our own domestic targets, given our carbon budgets. There is no sense, whatever the form of our final technical arrangement with the EU, that we would row back on our domestic commitments. I have been struck, as we talked about, by the power in co-operative action. Regardless of our technical arrangements with the EU post Brexit, the ambition to work together is extremely strong.

Q13 **Albert Owen:** I am sure you will accept the fact that the EU negotiating bloc is a very strong voice and has been leading the way in many areas: environment protection, et cetera. You talk about France and the UK leading the way in these negotiations, but France is going to be part of the EU negotiating bloc and Britain is going to be on the outside. Do you see that as a weakening of Britain's position?

***Claire Perry*:** I do not, and I might ask Pete to give his insights. We have a very good relationship with the UN Commissioner, whom we talk to frequently. We also have very good relationships with all the Ministers and officials from other countries. What I have learnt from the EU is that it has an incredibly diverse set of objectives within its negotiating frameworks. You have countries that are still big users of quite polluting coal: Germany, Poland and others, which have a very different approach to that fossil fuel. You have countries, such as us, France and the Netherlands, that are very actively phasing out fossil fuel vehicles, which is not happening right across the EU.

Within the body, there is quite a diverse range of climate ambitions, and in a way that makes it quite difficult for the EU to reach agreements. That is why the carbon price under the EU ETS is only €7 a tonne, and why we have set our own carbon floor price in the Budget in the UK. The EU has to respond to many diverse objectives. I will get Pete to comment, but my sense is that the more we can work and face the rest of the world together as a negotiating bloc, the better—and I see no impediment—just as we do with Canada.

Q14 **Albert Owen:** You have mentioned Canada a few times, and I will come to that. Before Mr Betts comes in, with regards to not being a member of the EU's negotiating bloc, do you envisage us being a member of other groups, so that we have a unified voice, or do you see us as a lone voice?

***Claire Perry*:** We are a member of other groups. We are a member of the High Ambition Coalition within the UN group. We are a member of Mission Innovation, where countries have come together to pledge investments for different investment opportunities. I see a range of opportunities. There are countries, such as the UK, France and some of the Scandinavian countries, that have made very strong commitments in this area, as have China and India.

If I could share with the Committee the PricewaterhouseCoopers analysis from last year, it said that there were only two countries decarbonising quickly enough to reach a two degree hold, and they were the UK and China. There is a real opportunity for us to be in that leadership role, regardless of the technical relationships.

Q15 **Albert Owen:** You referred to the UN group. What about the Umbrella Group and the Environmental Integrity Group? Do you see us being aligned to them, post Brexit?

***Pete Betts*:** We have been very influential in the EU, and we remain a member of the EU. I am struck that the deep relationships and the co-operation have been continuing in spite of Brexit. Ministers will take decisions about the position we take in negotiations and the groups we are part of in the context of the wider Brexit conversation. As the Minister said, the UK has probably done more than any other country to build alliances and bridges across groups: for example, the vulnerable countries, the so-called Cartagena dialogue and the High Ambition Coalition. We can play that unique role of bridging across different groups.

***Claire Perry*:** For the Commonwealth conference next year, we are already working with Commonwealth countries to make sure that the environmental sustainability and climate change themes are part of that dialogue. I see many opportunities to work with other countries.

Q16 **Albert Owen:** I will move on to COP23 itself and UK policy. I am very proud that the UK has a Climate Change Act and our target is enshrined in law. Is there a slight mismatch between the Paris agreement ambition to lower the temperature by 1.5 degrees and our Climate Change Act, which was passed a few years ago in this House, about 80% emissions and limiting temperature rises to 2 degrees? Is there a mismatch there and why have we not aligned ourselves as a country? Ambitious as we were and world leaders as we were then, things have moved on. I was in Paris and I remember the excitement about the 1.5 degrees agreement, and the UK quite rightly was boasting that we have enshrined this in law. We are slightly behind the curve now, and a world leader is ahead of the curve, not behind the curve.

Claire Perry: As you say, we are really world leading in having a Climate Change Act and statutory carbon budgets. New Zealand, Sweden and other countries have been coming up and saying, "We are going to do the same thing". One of the things I thought we could do at the next COP is have a workshop for countries that might want to do this. It means that these ambitions survive political cycles, and that is really important.

Albert Owen: That is why we did it.

Claire Perry: With cross-party support, I might add. There were apparently conversations in which some of our various leaders were not for this at the time, but I will defer to your knowledge. You are right to say that this only gets us to 2032 and an emissions reduction of 57% versus 1990. That is why, in the clean growth plan, we set out the various pathways we needed to get to the 1.5 degrees. There is an argument that says technology is moving so quickly and, if you think about what has happened to our economy, to the use of digital technology, to the price of offshore wind in the last 10 years, it has been dramatic. We have set out pathways where we test out what we would need to happen to get us to the 2050 levels and see if they are fit for purpose. That is the purpose of the pathway analysis.

Tim Lord: To expand on that, first, we remain world leading in terms of having the very clear legislative framework that we have and the 80% target. The Committee on Climate Change advised us on the Paris agreement shortly after it was reached, and advised that now was not the time to change our long-term target. Having said that, as Pete set out, there is a longer-term process, through COP, to look at the overall level of ambition. In the clean growth strategy, we have reaffirmed our commitment to a zero-emissions target in the second half of the century, as set out in the Paris agreement. We will be looking at when the most appropriate moment to bring that forward will be.

We hear from the stakeholders in this space and others that the focus on action now, and in the short and medium term, is absolutely critical in terms of keeping us on track to meet our commitments under the Paris agreement. That is precisely why the ambition set out in the clean growth strategy is so important.

Q17 **Albert Owen:** I am still not clear. The Minister has been saying, quite rightly, and she has my 100% backing, that we are world leaders, we have this statutory plan, we want to keep to it and we want to see what new technology is coming along and then adapt accordingly. But we are part of an agreement that says 1.5 degrees. Why can we not boast about that and say, "We are already going to reach 2 degrees. We have taken advice from the Committee on Climate Change. We have listened to its advice, but we want to be even more ambitious than the Committee on Climate Change"? You have quite rightly been boasting in the House of Commons about our position as leaders, but I do not see a leader. I still do not understand your answer to me that a leader should be behind other countries in ambition.

***Claire Perry*:** I am afraid I have to disagree. The issue is this: it is very easy for politicians to get up and say meaningless things.

Q18 **Albert Owen:** The rest of the world is meaningless in saying 1.5 degrees.

***Claire Perry*:** No other country has as detailed a policy framework as we have in front of us in the UK. Almost no other country has a five-year carbon budget in process and, to my knowledge, no other country has brought forward policies and proposals that show how we will meet those budgets. The response I have been getting from my meetings is: "Wow, you are really setting the pace here". The evidence is there. There are two countries in the world that are doing enough to get to 2 degrees: us and China.

Q19 **Albert Owen:** But China accepts the 1.5 degrees.

***Claire Perry*:** The question is this: as politicians, our responsibility is to bring forward policies that we know we can deliver, that do not put up prices unnecessarily for consumers and that give a very strong signal to markets as to where we want technology to go. For too long, we have all been guilty of standing up and making promises that we cannot keep, in all kinds of policy areas. I am really proud of the statutory framework that forces us, first, to focus on what we need to do and, secondly, to bring forward policies and proposals that are properly costed; we know how we are going to implement them, and we know what the impact will be in carbon terms. If you look at the budgeting process and at what we have in this document, according to what we know—and not all the policies and proposals are worked up; this is a strategy—we will deliver 94% and 93% of our required performance against 1990.

Q20 **Albert Owen:** We hope to deliver that.

***Claire Perry*:** That is if we implement what we know is in here. That is for budgets that end 10 years and 15 years out. I am going to give you a 93% probability of cashing in on this stuff in 10 years.

Albert Owen: I am not a gambler.

***Claire Perry*:** Neither am I, and that is why I want this to be policy focused.

Q21 **Albert Owen:** COP23 was all about giving hope to other countries, and Britain was very proud to say that we are leaders and that we are giving hope. It is not just about us; it is about the smaller islands and smaller communities as well. Leadership is about giving hope, and we would give more hope if we were to sign up to the 1.5 degrees. That is not just a personal view; that is the international community's view in many ways. Can I move on?

***Claire Perry*:** May I answer the question?

Albert Owen: Yes, but it was not a question.

***Claire Perry*:** I agree that we should sign up to the 1.5 degrees when we can see the pathway to deliver it, so that it is not an empty promise that we bequeath to the next Government, but a promise that is properly funded, properly analysed and we can see the technology that is going to get us there.

***Pete Betts*:** Mr Owen, I take your point, but collectively the commitments made by the world do not yet put us on track even for 2 degrees, let alone 1.5 degrees. Probably no major economy yet has a target that is compatible with that. The UK's is among the most ambitious. That is why the Paris process foresees this five-yearly process where collectively we look at our ambition.

Q22 **Albert Owen:** Minister, you were quoted as saying that you think that other countries should be accelerating their momentum. What I am saying is that we have good momentum; we should be carrying our momentum as well, not lecturing other countries about accelerating their momentum.

***Claire Perry*:** No one is lecturing. If you talk to climate experts like Pete, the biggest thing the world could do is stop burning coal. That is the number one biggest thing we need to do to meet the Paris agreement targets.

Q23 **Albert Owen:** There are lots of things. You mentioned the Canadians. The Canadians have moved from coal to tar sands.

***Claire Perry*:** That is the statement from the International Energy Agency. That is what the experts tell me is the one thing the world needs. I would love to finish a question, Mr Owen.

Q24 **Albert Owen:** You mentioned Canada a few times, as if they are the goodies in the world. They are the ones who pulled out of Kyoto; they are the ones who are going into tar sands. They are hardly environmental goodies in the world.

***Claire Perry*:** I would like to stay focused on coal.

Albert Owen: There are other things.

***Claire Perry*:** It is twice as dirty as any other fossil fuel. That is why the overwhelming support that 26 other counties and states gave to the Powering Past Coal Alliance, in response to us being one of the leaders in phasing out coal, was so important. We should be working across boundaries with other countries, in the EU and elsewhere, to work out, if they need to use coal, how they do it in a way that does not contribute to emissions.

Q25 **Albert Owen:** Is your and your team's response in line with Andrea Leadsom, when she pledged that the Paris agreement net-zero target would be in UK law?

Claire Perry: We have always said that that is something we would like to do. We were advised by the statutory body that we set up, the Committee on Climate Change, that now is not the right time to do that, because we do not yet have the technology and a cost-effective way to meet that. If we were to legislate for that, we would not know how to deliver it. That is why, particularly around the carbon capture and storage technology—

Q26 **Albert Owen:** Last year's pledge was fake.

Claire Perry: If you read the wording of it, it said that we want to, not that we will by a certain date.

Q27 **Albert Owen:** We committed to it.

Claire Perry: Yes, but not by a certain date. I do not know about you, but I am not in the business of making fake promises from the Dispatch Box.

Q28 **Albert Owen:** I am quoting your colleague.

Claire Perry: I did not make that pledge. I have said what the Committee on Climate Change has advised us to say, which is that we do not yet have the technology to deliver that. We can make magic money tree promises all we like but, if we cannot deliver it, we should not be talking about it. We should be focusing on what we can deliver.

Albert Owen: I am sure your colleague is listening.

Q29 **Chair:** Is the point that the clean growth strategy needs to be more ambitious than it is to meet the 1.5 degree temperature rise that was in Paris? We do not have enough to get us to Paris in the clean growth strategy, do we?

Claire Perry: The clean growth strategy is the response to the carbon budget process. We are currently focused on carbon budget 5, which ends in 2032, whereas the Paris ambition is for 1.5 degrees by 2050 or the second half of the century, as I understand it. That is why, in here, we set out exactly those pathways, to show how we might get to that. We need to focus on delivering the numbers to which we have committed ourselves, invest in technology and set the legislative framework to make sure we deliver this and then look beyond it.

Q30 **Chair:** In the clean growth strategy, we do not meet our fifth carbon budget. It is not that we are doing enough to meet our fifth carbon budget, and then let us look to Paris. In the clean growth strategy, we fall short of even meeting that fifth carbon budget target, which does not bode that well, does it, for getting us to Paris?

Claire Perry: To focus on the quantum, based on these numbers—these were 2015 emissions—we are 93% of the way towards our fifth carbon budget. I shall shortly bring forward our 2016 emission numbers, which will tell an even more positive story. Does that mean that I can sit here and predict whether, 15 years out, we will get to that number? It looks like we will get pretty close to it. You will know, Ms Reeves, that the Climate Change Act also gives us technical opportunities, should we wish to take them, in consultation, to use flexibilities, both from future years and from past years. My confident expectation is that we will not have to use those, but the Act that was passed by one of your very esteemed now Back-Bench colleagues gives us the flexibilities to do so.

Q31 **Chair:** We will come on to flexibilities shortly, because the Committee has real concerns about using those. You cannot be confident, can you, Minister, that we will meet our fifth carbon budget, based on your clean growth strategy? As ambitious as it is, it does not get us there. We need to do more, if we are going to meet the targets we have set ourselves. Is that not right?

***Claire Perry*:** No, it is wrong. To reassure you, the current proposals for carbon budgets account for the calculated emissions reductions of 30% of the policies and proposals in this document. You will know that we have a strategy; it is a 15-year strategy. While we are able to quantify the emissions reductions of some policies that are at an advanced state, others will be brought forward. The change in policy around building regulations is an example. The Committee must agree that it is right to wait for the Hackitt inquiry on Grenfell before we bring forward any proposals to change building regulations. Therefore, we cannot yet quantify the emissions reductions from those policies.

In the real world that we all live in, if I said to somebody, "We are 93% of the way towards meeting a target in 15 years' time", most people would think that we will probably hit it. Call me crazy, but I also think that for a Government to sit here, knowing that some of the technologies we need to get to that target are not cost effective, and to deploy them would put up energy bills, would be a very irresponsible thing to do. I hope the Committee would agree that we have set out ambitious targets, it looks like we are on track to get there and we should work together to see the most cost-effective way of deploying the new technologies we need.

Q32 **Chair:** The language you use is not quite right, because the plans are not in place at the moment. Maybe plans will come forward in the future, but you cannot say for certain that we are going to close that gap. There is a gap of around 10% at the moment, which is why you are saying that we might need to use the flexibilities. As it stands, the clean growth strategy will not get there. As you say, plans forthcoming from the Government may get us there in the future, but your clean growth strategy does not get us there, does it?

***Claire Perry*:** If I can refer the Committee to pages 40 and 41, where we set out the exact carbon budget, our current estimated projection, based on 30% of the policies and proposals, suggests we will get to 93% of the way there. I agree it is not 100%; it is 93% of the way there in 15 years' time. That is a pretty strong sense that we will make those budgets.

Chair: Ninety-three percent is not 100%. If I did a test at school, and I came home and told my mum and dad that I got 100%, they would expect me not to have any of my answers wrong. You are at 93%. That is good; it might get you an A-minus, but it is not all the way there. You are not there yet. I hope you will be, but you are not there yet.

Q33 **Vernon Coaker:** Building on what the Chair has been asking about the strategy, why did you call it the clean growth strategy and not a clean growth plan? It seems to have morphed from one thing, through emissions reduction, into a clean growth strategy. You can see what people will think, given that there was a year's delay as well. What is the answer to that, please?

***Claire Perry*:** The answer is that, when I came into the position, I saw a document that set out how we would bring forward policies and proposals to meet the carbon budget, but had the potential to coalesce with the industrial strategy also under preparation in the department, by setting out a 15-year series of ambitions, proposals and policies as to how we would both meet our carbon emission reductions and benefit from the huge economic opportunity of clean growth.

To me, a plan is a 10-point thing that you tick off. A strategy says, "Here is how we are going to align policies and Government spending". Remember, this plan set out for the first time how we will spend £2.6 billion of the biggest increase in Government R&D ever in this area, and how we will help companies take advantage of this. Forgive me; this is possibly from my background as a consultant long ago, but it felt like a more strategic document. Embedded in there were the detailed plans for how we would work to meet the carbon budgets.

Q34 **Vernon Coaker:** You can see how it appears. A plan is always regarded as something much more concrete, something to which you can refer to deliver particular policies, whereas a strategy tends to be a more general, vague sort of thing. We have a situation where the first carbon budget is met; the second and third carbon budgets are expected to be met; but, when we look at the fourth and fifth budgets, as the Chair has just said, under existing policies, they are not going to be met. Is that not one of the reasons why people might think you have changed from a plan to a strategy, because those fourth and fifth budgets are not going to be met under current policies?

***Claire Perry*:** I refer the Committee to pages 12, 13, 14 and 15 of the clean growth strategy, where we set out 50 detailed policies and proposals, working right across the economy, for how we are going to decarbonise business emissions, transport, homes et cetera. It is possibly—in fact, not only possibly, but confidently—the most detailed set of carbon emission reduction commitments any Government have ever made.

Forgive me; I know the honourable Gentleman is very aware of this area. The reaction to this document from the stakeholders with whom we work was overwhelmingly positive. The use of the word "strategy" was very welcome, because people said, "We need a Government strategy to deliver this". This has become one of the four pillars of the industrial strategy that was very successfully launched yesterday. The opportunity from clean growth, given how you have to align business, the public sector, NGOs and the consumers to deliver it, is a fairly strategic thing.

I am afraid it was my decision to call it a strategy. It expresses exactly what we need to do. The response to this from stakeholders who are not necessarily known for positive reactions was overwhelmingly positive.

Q35 **Vernon Coaker:** Why would you publish a document that is insufficient to meet the fourth and fifth carbon budgets?

***Claire Perry*:** Mr Coaker will know that we are talking about budgets that are 10 years and 15 years out. We have set out a whole series of policies and proposals that we think are sensible, that we know are cost effective and technologically robust. We intend to deploy the £2.5 billion of spending on R&D to help us get to a position where technologies that we all agree are important, like carbon capture usage and storage, can be deployed cost effectively. To me, there is a triple test for what we do. Does it cut emissions? Can we see a cost-effective deployment pathway? Does it create a competitive advantage for British industries?

I could have put in a whole load of unfunded proposals at eye-wateringly high costs for consumers and businesses, but that is not the right thing to do. The right thing to do, economically, is to say, "Those are the budgets". Forgive me, but I think 93% odds of meeting something 10 years out are pretty good odds. Call me crazy, but I do, and here is £2.5 billion, the biggest investment in this area we have ever done as a Government, to make sure we deliver.

Q36 **Chair:** There are not 93% odds of meeting it, Minister. You have put in place plans that will get us 93% of the way there. It is not a 93% chance of meeting our carbon reductions. You have to get this right. We do not have a 93% chance of meeting our targets, do we?

***Claire Perry*:** Thank you for correcting me. We have 100% chance of meeting our targets.

Chair: That is with flexibilities.

***Claire Perry*:** No, it is based on domestic policy action without using flexibilities. I agree that, to clarify, based on the budgets, based on our analysis of 10 years and 15 years out, we achieve 93% and 94% of the level we need to get to.

Q37 **Vernon Coaker:** As it stands at the moment, the estimated carbon savings are coming from only 30% of the new policies in the clean growth strategy. Is the aspiration of the Government, at the end of 2032, to have fully met the fourth and fifth carbon budgets? Is that the Government's policy objective? Is it an aspiration or something that the

Government absolutely want to achieve?

Claire Perry: We have a statutory obligation to achieve it, so we are legally required to achieve these outturns.

Q38 **Vernon Coaker:** Are you confident about the other 70%? When are you going to develop the other policies that will enable you to meet the fourth and fifth budgets? When can we expect to see those policies?

Claire Perry: As I mentioned to the honourable Gentleman, the biggest pool of emissions in the UK economy right now is from business activities and energy usage. We want to look at the building regulations and see how they could be improved and enforced, working with colleagues in DCLG. It would be wrong to pre-empt the findings of the Hackitt inquiry by bringing forward any proposals for changing building regulations. That is an example of the sort of policy that we do not yet know. We are going to consult on it. We confidently expect that it will bring forward substantial savings, but that is an example of how we cannot yet predict what that policy will deliver.

Tim Lord: That is absolutely right. As the Minister says, a number of the policies and proposals in this document are not fully quantified yet, and we will be going through that process over the next couple of years. One of the annexes to the document sets out some of the timings for how we will do that.

The other really important point is that we have been very conservative in our assumptions about what innovation we will deliver. We have not assumed that innovation will deliver X% of further savings. If you look at the record on innovation in the last 10 years, offshore wind has halved in price in the last two years; solar cells have come down by 80%; battery packs have come down by 70%. If you look at the investments we are making in innovation, the investments the private sector is making and the investments being made internationally, it is reasonable to assume that you will see further reductions as a result of that innovation.

We have also set out in the document further proposals for how we will be really transparent in reporting on our progress against carbon budgets, to make sure we are being transparent with the Committee and others about our progress towards targets that, as the Minister says, are 10 years and 15 years out.

Q39 **Vernon Coaker:** We are going to develop policies that will enable us to fill the gap that exists at the present time with respect to the fourth and fifth carbon budgets.

Tim Lord: Those policies will contribute to meeting that gap.

Q40 **Vernon Coaker:** The Government are confident that the policies that are being developed will enable, as the Chair pointed out, the Government to fill that gap with respect to the fourth and fifth carbon budgets.

***Claire Perry*:** Based on what Tim said, we could spend taxpayers' money on developing hydrogen as a heat source, either through the national grid or as independent hydrogen boilers, which is something that constituencies like mine, where people live a long way from the grid and have to buy heating oil, would find incredibly useful and a way of reducing carbon emissions. Are we confident that that technology can work and that we can bring forward policies to deploy it? That is where we have to invest.

That is where the investment money that we are spending, as part of the biggest investment we have made in this area, indeed the biggest public sector investment in R&D ever, has to be deployed. That is where the pathways come in. We know the problems we need to solve. We know some of the ways we might want to get there. That is driving where the R&D investment is going.

As Tim said, we are seeing incredible falls, particularly in the price of technology. A lot of this is price based. People will adopt new technology if it makes sense. People do not buy heat pumps now because the upfront cost is more expensive than a boiler. We have to work to drive down these costs so we can drive up adoption rates. I do not like to be vague; I like to be incredibly factual. My sense is that these policies and proposals will fill the gap, but unknown changes will also help us fill the gap. If we suddenly end up with all the auto manufacturers deciding that they will move to electrical fleets by 2035, that will have a measurable impact on our emissions. That is why we set the target of phasing out fossil fuel vehicles by 2040, because we wanted to send those ambitions to the market.

Q41 **Vernon Coaker:** You can see, though, why that starts to sound like a strategy rather than a plan, because it is based on what may happen, what might not happen and unforeseen circumstances. People would want to see concrete proposals that they know will deliver the changes needed to enable the Government to meet the fourth and fifth carbon budgets. What happens if they do not work? You are left saying, "Well, we will look for alternatives", which goes to why you have a strategy and not a plan.

***Claire Perry*:** We have underlined this: it is a legal obligation to deliver. You are right to say that we delivered on the first carbon budget. The expectation is that we will over-deliver on the second and third carbon budgets. We have a legal obligation to deliver this.

Can I share with the Committee an analogy that I found useful when I was having these conversations? How are we going to cure cancer? We know we want to cure cancer, and we are making medical breakthroughs that might lead to substantial cures for cancer in 10 to 15 years' time. Can we sit here today and say, "That technology is 100% going to cure cancer"? Of course not. We know that it might be coming from the genetic area, and that is why we are pumping so much money into genetic cancer research.

We have not set ourselves a statutory framework for curing cancer in the UK; maybe it is something we should do. But that is analogous to saying, "How can we possibly predict the technologies in 15 years' time that will change the way that we emit carbon, based on the fact that we did not even have smartphones 10 years ago?" I would be a really otherworldly politician if I was trying to predict that.

Forgive me if the Committee disagrees, but I am comfortable with the targets. This set of policies and proposals we have brought forward, which are concrete and commit to delivering further in the future, is the most comprehensive set of decarbonisation activities any Government in the world are undertaking today, because they work right across the UK. That has been the response from our international partners.

Q42 **Vernon Coaker:** But there is still a gap, which is the point.

Claire Perry: There is still a gap.

Q43 **Chair:** The Minister for Health would not sit in front of the Health Committee and say that they were confident that we were going to cure cancer by 2050. You are saying to us that you are confident that we are going to meet our carbon reduction targets by 2050. That is why we are interrogating and asking you these questions, because you are making a commitment. We are trying to establish how you are going to get there. If the Minister for Health made a commitment about eradicating cancer, they would be quizzed in the same way. We are just asking you and trying to understand how you are going to achieve these targets.

As you and I both agree, it is important that we do. We are just concerned about the level of detail to get there, and I think those are reasonable questions. How would you feel if we ended up using flexibilities to get to our target? Would you be happy if, instead of having concrete policies, we ended up having to use the flexibilities?

Claire Perry: I would be disappointed. It was a pragmatic decision by our friend from Doncaster North—I cannot remember his constituency—who put those into the Climate Change Act. My sense is that, when the Labour Government passed the Climate Change Act, they were aware that all these targets needed to be met in a way that voters would feel was reasonable. It was perfectly reasonable to put in the ability to carry forward over-achievement, carry back from later budgets and use international carbon credits. That is something for which we had cross-party support in 2008 when that Act was passed.

Given the level of progress we have made, given the level of ambition—because, remember, we have substantially stepped up what our carbon reduction needs to be in the fourth and fifth budgets—I would be personally disappointed if we had to use them. If the cost of not using them was to stick up energy bills on consumers, particularly vulnerable consumers, I would judge that that was the right call to make. However, we have to take independent statutory advice on that from the Committee on Climate Change.

Q44 **Chair:** You agree with the Committee on Climate Change that it would be wrong to use the flexibilities. I agree with that.

***Claire Perry*:** It would not be illegal.

Q45 **Chair:** I did not ask if it would be illegal. I know it is legal, but you think it would be wrong or disappointing.

***Claire Perry*:** It would be disappointing.

Q46 **Chair:** "Disappointing" is your language, okay. How are you ensuring that other departments buy into the aims of the clean growth strategy? For example, are you pushing for the re-adoption of the zero-carbon homes standard?

***Claire Perry*:** In order to bring forward these 50 policies and proposals, the honourable Lady will know that there was a tortuous write-round where all departments had to be signed up to deliver these. Two of the big areas for delivery, the Road to Zero from the DfT and the 25-year environment plan, will be brought forward by other departments. We have re-established the inter-ministerial group on clean growth.

Q47 **Chair:** I am just asking about zero-carbon homes. Will you push for the re-adoption of the zero-carbon homes standard?

***Claire Perry*:** I am advised by colleagues that the standard, as set up, made homebuilding too expensive and it was not necessarily consistent with developing homes that were cost effective to run in the long term. We have set out, under "improving our homes", a series of policies and proposals, including the commitment to eco, the aspiration to have all our homes upgraded to EPC band C by 2035 and various other things.

Q48 **Chair:** You will know that it is cheaper to make our housing stock more energy efficient when it is built than to retrofit. Are you not pushing the Department for Communities and Local Government for the zero-carbon homes standard?

***Claire Perry*:** I am not pushing for gimmicks. Some may say that "zero-carbon homes" is a headline that cannot be delivered in a way that consistent is with stability.

Q49 **Chair:** Do you think zero-carbon homes are a gimmick?

***Claire Perry*:** No. Focusing on a headline like that does not get to the real problem. You are absolutely right to say new homes need to be built in an energy-efficient way. Our challenge is not just building energy-efficient new homes; it is retrofitting some of the oldest housing stock in Europe, which is not captured by the zero-carbon homes standard.

Q50 **Chair:** I am not saying you should not try to do other things. As you have said, other things need to happen to meet our fourth and fifth carbon budgets, so I am now trying to explore what other things might be done. Zero-carbon homes is not going to be one of the ways through which we meet our budgets.

Claire Perry: We want to upgrade all our fuel-poor homes to band C, and to have all our housing stock, where cost effective, at EPC band C.

Q51 **Chair:** I am sure those are very useful policies, which I may support, but that was not the question.

Claire Perry: Forgive me; I am not trying to be awkward.

Q52 **Chair:** You just have to say "no", Minister. That is fine, and I will move on to the next question. Another area requiring cross-departmental collaboration is Heathrow expansion. If you want to come back on zero-carbon homes, that is fine, but that is what my question was about.

Claire Perry: Can you rephrase the question so I can answer it with a one-word or two-word answer? I do not feel I have answered it yet.

Chair: Will you push for the re-adoption of the zero-carbon homes standard?

Claire Perry: I will push for the housing stock in this country to be as energy efficient as possible.

Chair: You said you would give a one-word answer.

Claire Perry: That is the answer to the question.

Q53 **Chair:** It is not a one-word answer.

Another area requiring cross-departmental collaboration is Heathrow expansion. The Government's cost-benefit analysis for the expansion creates a 15% black hole in the 2050 carbon budget that other sectors will have to fill. What are the Department for Transport's proposals to make up for this emissions-reduction shortfall?

Claire Perry: I cannot speak to the Heathrow project, I am afraid, but the DfT will bring forward its Road to Zero package next year, which will set out the department's plan to get us to a zero-emissions transport sector. We saw the investment of money in things like the Faraday Challenge and the new charging networks, which are a substantial commitment to taking the carbon out of our transport.

Tim Lord: First, we have been pushing for these emissions to be taken account of at a global level and through the work that the Minister and Pete and the teams are doing, given their international components. The carbon budgets have been set in a way that takes those emissions into account, and we are on a trajectory that could be consistent with the 2050 target, which includes emissions from international aviation. In terms of Heathrow specifically, we have agreed with the independent Airports Commission's conclusion that expansion can be delivered within the UK carbon obligations.

Q54 **Chair:** In the Budget last week, one of the documents accompanying it with regard to keeping energy costs as low as possible states that, "there will be no new low carbon electricity levies until 2025". The *Control for*

Low Carbon Levies report shows the central estimate of renewables growth out to 2025 with no increase in any technology except offshore wind. Implicit in that, according to Greenpeace, is that the projections for decarbonisation of the power sector published in your clean growth strategy will not be met. Is that your understanding?

***Claire Perry*:** No.

Q55 **Chair:** Why will there be no new carbon levies before 2025?

***Claire Perry*:** We have committed £600 million of taxpayers' money out to 2025 to support contracts for difference. Given that I opened the country's first subsidy-free solar farm a few months ago, and we are buying offshore wind at, effectively, subsidy-free levels, it seems to me that committing £557 million for further subsidised renewables is a pretty decent commitment. It is absolutely right to say that, as costs fall, so should the level of subsidies. Of course, we want always to be looking for new, innovative renewable technology, and we can discuss that but, as we are getting to a subsidy-free world for mainstream renewable technology, I have to say, feeling my fiduciary responsibility for taxpayers' money, it seems to me entirely consistent to stick to the £557 million commitment.

Q56 **Chair:** What does that mean for tidal, wave and geothermal technology? Does that mean that none of those projects will get the go-ahead?

***Tim Lord*:** I do not think it means that. We have not made decisions about exactly how that funding of up to £557 million will be used, first. Secondly, as you say, it is about deployment up to 2025. Technologies will come forward after 2025 in some cases. It is important to say that the UK's record as a destination for renewables investment is very strong: ranked third in the world by Bloomberg New Energy Finance as a destination for renewables investment, spending over £6 billion, we expect, this year on renewables, rising, as the Treasury document that you referred to set out last year, to over £8 billion.

Q57 **Chair:** What I am trying to get at, Minister and Mr Lord, is that we have some detailed plans of how we are going to get to our fourth and fifth carbon budget. I am exploring what else might be done. On zero-carbon homes, the Minister has said that that will not be something that she is pushing for, so now I am just exploring, in the power sector, whether there are going to be no new carbon electricity levies. Maybe that is the right decision or maybe it is the wrong decision. However, new carbon electricity levies would, presumably, help to get to 100% of the target, where we would all like to get to. Wind, tidal, geothermal and wave are the sorts of things that would help us to get there. If there is going to be no money available for those new projects, what does that mean?

***Claire Perry*:** I am afraid I disagree. We have not set out technology-specific requirements for future auctions, which is why these differences were not included in the HMT projections, because they are based on what bids into the particular auction. The Committee is absolutely right to focus on other technologies, where there may be an opportunity to drop cost pathways through further investment. That is absolutely something that we will be exploring, as we said in the clean growth strategy, through various contract-for-difference auctions that we will bring forward. That is the intention and the commitment of the £557 million: to support exactly that.

Q58 **Chair:** Is there a possibility that there would be subsidies for wave, geothermal and tidal before 2025?

***Tim Lord*:** Those decisions have not been made yet. As the Minister says, the crucial point is that, because we have moved to a competitive structure for allocating our renewables funding through the CFD, you have seen a really material commitment from the Government in terms of the funding available for that: up to £557 million. Secondly, you have seen costs plummet, so the amount that we can get for each pound that we invest in renewables increases significantly. As the Minister says, as decisions are taken on how to utilise that funding and which groups of renewable technologies it goes to, we will update our projections in terms of how much of those technologies we will deploy and at what time.

Q59 **Albert Owen:** Can I just push on that with regard to the Swansea Bay Tidal Lagoon? Again, the Government asked Charles Hendry to have his own review into it. He has reported to the Government. He has not had a response. There was no mention of this in either the clean growth strategy or the Budget. When are these announcements going to be made and how are they going to be supported? This is the first of its kind. How is it going to be supported?

***Tim Lord*:** As you say, Charles Hendry carried out his review last year, so we are still considering our response to that and we will set that out in due course. The clean growth strategy references some of the technologies you are talking about, and it says that they can have a role in the long-term decarbonisation of the UK. However, as you would expect, given our focus on minimising consumer bills and maximising UK competitiveness, they will need to demonstrate how they can compete with other forms of generation.

Q60 **Albert Owen:** Sorry, I am not quite clear on that. The response you gave the Chair there was no new moneys other than what has already been allocated. Are we saying that, because there are no new moneys until 2025, the Swansea Bay project is unlikely to get moneys until that period?

***Tim Lord*:** I am not saying that. We will set out our plans on Swansea Bay and tidal lagoons in our response to—

Q61 **Albert Owen:** What about nuclear projects other than Hinkley Point, Wylfa in my constituency, which is very important to me, and Moorside in Cumbria? They were existing projects, were they not? They would not have to wait until 2025, from the Chancellor's announcement that there will be no new moneys. Those are already commitments.

***Claire Perry*:** If I can refer you, Mr Owen, to policy 34, we will "Deliver new nuclear power through Hinkley Point C and progress discussions with developers to secure a competitive price for future projects in the pipeline".

Q62 **Albert Owen:** Those are in the pipeline?

***Claire Perry*:** Yes.

Q63 **Chair:** Hinkley C requires subsidy, so I am not entirely clear. Will there be new money available? The Budget suggested not until 2025.

***Claire Perry*:** I will have to write to the Committee on the financing structure for nuclear, as it is not my portfolio.

Q64 **Chair:** The other ones that Albert Owen mentioned are.

***Claire Perry*:** The contract for difference auction, which is what the £557 million refers to, is committed from now until 2025.

Q65 **Chair:** That is offshore wind?

***Claire Perry*:** No, that is for a whole series of different technologies. Right now, we have two pots—I am now breaching Minister Harrington's portfolio—for established technologies and less-established technologies. Different forms of technology can bid into each of those pots. In the last auction, offshore wind was a big winner.

Q66 **Albert Owen:** I just want to press a little further, sorry. We are talking about these ambitious plans for electric vehicles et cetera. To do that, we need to generate low-carbon energy. Some of these projects, like the Swansea Bay Tidal Lagoon, onshore wind projects and solar—and you have explained that nuclear is not in your portfolio, but that the projects that I mentioned of Moorside and Wylfa are in the pipeline; they would go ahead—can do that. Meeting those targets of getting electric vehicles that you ambitiously laid out will need low-carbon projects. For certainty for investors, they are going to want to know that that money is available as soon as possible and they can compete in the round, so why did the Chancellor make this announcement that there would be no new moneys until 2025?

***Claire Perry*:** Can I make two points in response? First, I do not know whether the nuclear deals in the honourable Gentleman's constituency are in the pipeline. I will have to write to him on that because it is not within my portfolio.

The second question is this: if we are buying renewable technology, and if renewable technology is coming forward in a way that does not require subsidy—i.e. we are now able to see subsidy-free solar generation and subsidy-free onshore wind—of course we can meet the commitments we need to have clean electric vehicles being charged both from the grid and from distributed technologies, without using taxpayers' money to subsidise those technologies. What has been delivered is the policy that we all wanted, which was to invest upfront, to set up auction frameworks and to drive down the costs to the point where they did not need subsidy. We should all be really proud of that job.

What we now need to do is deploy that further subsidy, which is other people's money that we are spending on their behalf, in the technologies that bring forward the maximum benefit in terms of low cost, carbon reduction and technological-export advantage. Again, as Tim said, we have made no decisions about which technologies will bid into those.

Q67 **Albert Owen:** You can understand our confusion. We have the low-carbon levies announcement, we have the industrial strategy, and they seem to be contradicting each other. The industrial strategy said yesterday that we are going to be world leaders and first of a kind, yet the Chancellor is saying that there is going to be a pause until 2025.

***Claire Perry*:** Forgive me; I just do not understand. If we can buy clean power with no subsidy—

Q68 **Albert Owen:** That is onshore.

***Claire Perry*:** No, that is offshore wind. That is now starting to be solar. We do not need to subsidise those technologies any more.

Q69 **Albert Owen:** Do we not need the rich energy mix that you used to talk about?

***Claire Perry*:** Yes, we do, and that is why we are committed to nuclear projects, because we think they are part of the mix. It is why we are confidently able to phase out coal, knowing that we will not have a reduction.

Q70 **Albert Owen:** What about tidal?

***Claire Perry*:** We have said that, if we can buy technologies within that pot of money that can deliver carbon emission reductions, where we can see a cost-effective pathway, so we are not putting up consumer bills, and where we create a technological advantage, we want to see them.

Q71 **Albert Owen:** I understand you unpicking it like that, but the big picture is energy security and lower carbon. Unless we have continuity and give certainty to investors, they are going to go elsewhere, are they not?

***Claire Perry*:** We have £600 million of other people's money committed to that pipeline until 2025. We know that technologies now do not need subsidy in these cases in order to be brought forward.

Q72 **Albert Owen:** You are saying that the new tidal lagoon would not need subsidy.

***Claire Perry*:** I do not know the economics of the tidal lagoon.

Q73 **Albert Owen:** It is the first of a kind.

Claire Perry: Technologies that meet the triple test—do they reduce emissions, can we see a cost-effective pathway and can we create a technological advantage that we can export around the world?—are the technologies we want to see.

Q74 **Albert Owen:** I think the Hendry review says yes to two out of three of those.

Tim Lord: The Minister is absolutely right. As you say, we need to respond to the Hendry review. We are very unusual in the UK in setting out such a clear pathway about how we fund renewables, as we did through the levy control framework, which was set up in 2012. As you say, the Chancellor has indicated no new levies for projects deployed before 2025, but we have made that commitment of up to £557 million, which, as the Minister says, particularly given the scale of cost reduction we are seeing in technologies such as offshore wind, is a very material commitment from the Government. As the Minister says, when we published the clean growth strategy, that commitment of up to £557 million was very widely welcomed by investors.

Claire Perry: That means we can buy more renewable technology because we are able to buy technology without subsidy. One way to think about it is that we have £600 million of other people's money that we are prepared to invest on their behalf. That means we can bring forward different forms of technology because we have almost got to subsidy-free in the more mainstream forms. That is a huge success story. That is also a fairly substantial commitment that we have made with taxpayers' money to continue to support this journey.

Q75 **Drew Hendry:** Good morning, Minister and your team. I have listened very carefully to your confidence about meeting the fifth carbon budget. If I quote you correctly, you said that there is a 100% chance. Also, if I quote you correctly, I think you have said that coal is twice as dirty as any other fuel, and that the biggest thing that the world can do is stop burning coal. Finally, you stated that you are confidently able to phase out coal.

Yet the Grantham Research Institute at the London School of Economics has had a look at the Budget and has warned that the proposals to freeze the total carbon price risk the UK missing the fifth carbon budget. An analysis by Aurora Energy suggests that it could result in a return to coal. On what grounds are you so confident that the total carbon price is set at the right level and that it is appropriate to target a similar carbon price until unabated coal is no longer used?

Claire Perry: I have not seen that analysis. We have made a Government commitment to phase out the use of power on our national grid from unabated coal-fired power stations by 2025. Setting a carbon floor price that is several multiples of that, achieved through the Emissions Trading Scheme, is a good way both to deliver that and to deliver the decarbonisation of other technologies. I am afraid I am not aware of this analysis. I have seen nothing to suggest that, somehow, the Government's decision to not allow power generated by coal on the grid will be in any way threatened; indeed, we have decided that we will try to lead the world in that transition.

Q76 **Drew Hendry:** I know that the Government do not like to listen to experts, but it might be worth looking into that analysis. What are your plans, then, for carbon pricing once unabated coal has been phased out?

***Claire Perry*:** Forgive me; I do not understand why the honourable Gentleman is linking the two things. We are phasing out coal. We have a carbon price that we have set in the Budget of—

***Tim Lord*:** £18 a tonne.

***Claire Perry*:** That is what we are setting as the carbon price. We are going to phase out coal—no ifs, no buts—by 2025.

Q77 **Drew Hendry:** Let me make it clearer, then: you were saying earlier that you were 93% there in terms of your plans. If that carbon price is not adjusted, how can you go further than phasing out coal?

***Tim Lord*:** First, it is important to mention the effect that the carbon price floor has had in terms of coal coming off the system, down from 40% in 2012 to about 9% last year. As you know, we had the first coal-free day in the UK for about 150 years earlier this year. Back to the point about investor certainty, the Chancellor set out the trajectory for the carbon floor price to 2025. Clearly, as we consider options beyond that, the Chancellor will want to think about the role of carbon pricing in the energy mix beyond that day. I would not want to pre-empt those decisions, of course, but they will be part of the longer-term consideration about how we meet our carbon budgets.

Q78 **Drew Hendry:** They will be part of the longer-term consideration. Is that what you are saying?

***Tim Lord*:** We will be looking at, as the clean growth strategy sets out, a variety of means for meeting our carbon budgets. We do not want to project the carbon price floor too far ahead, given, as the Minister said earlier, the dynamism in the sector. But it will be one of the things, I am sure, that the Treasury is considering for the long term.

Q79 **Drew Hendry:** To follow that up, when will you be able to provide clarity on our future relationship with the EU Emissions Trading Scheme, the ETS, and the role that this will play in the UK's total carbon price?

***Claire Perry*:** It is a very important question and, contrary to some misreporting over the weekend, the decision to change our technical relationship with the EU is separate from our decision about what we do with the ETS. We do not have to leave the ETS as we negotiate to leave the structure of the EU. We have said that we want there to be no cliff edges for business. We understand that, even though it does not set a particularly good price signal, it is a very effective cap-and-trade mechanism. Of course, it was piloted in the UK, and 90% of carbon traded in the world is traded in London. It is something that we want to remain part of, as we go through the negotiations, which are currently ongoing.

Sadly, some other countries, despite the fact that Britain has always been an extremely grown-up partner in the ETS and always been very supportive, are trying to table some tit-for-tat amendments at the moment. I and my team are working extremely hard with the Commission to make sure that they do not come forward and they have no negative effect on British businesses in the near term.

I have also said that I would like the team to explore whether there are other opportunities—alongside or as part of it, to see what is out there—to potentially trade emissions. What I want is a better carbon price signal to drive the emissions activity in our economy. Approximately €7 a tonne, which is what it is right now, is not high enough and does not reflect the cost of carbon.

Q80 **Drew Hendry:** Given what you have said about the effectiveness of the ETS, do you intend for the UK total carbon price to increase if the EU ETS price rises, as would occur under current arrangements, or do you intend to keep the total carbon price at a similar level to the 2017 value? I noticed earlier that you said—and I think I am quoting you correctly—"so that we can respond to diverse objectives". If objectives are diverse beyond the coal phase-out—and this comes back to what I was saying earlier—will the UK set carbon prices at a level only to achieve coal phase-out?

***Claire Perry*:** The Treasury is responsible for carbon pricing. If we felt that there was a change required in the carbon price, which I want to emphasise is almost three times higher than the price achieved in the EU ETS right now, that is something that we would have to take under review. The coal phase-out will happen. We are ahead of target in terms of bringing forward our renewables. As Tim said, we had our first coal-free day in 150 years this year. We are making incredible progress on renewables, partly because the costs have come down so precipitously. Again, if that is happening around the current carbon-pricing regime in the UK, clearly we are sending the right signals.

Q81 **Drew Hendry:** Let us move on. £2.5 billion has been allocated for investment in innovation in clean growth. Has any new money been committed, or is that merely a restatement of an existing commitment?

***Claire Perry*:** It is £2.576 billion. That was taking part of the commitment that was made in 2015 to have a very substantial increase in Government R&D and putting it to work against our various clean growth initiatives. Page 52 of the clean growth strategy sets out how we are spending that money to align with our requirements as to which pools need to be decarbonised most.

Q82 **Drew Hendry:** We also heard last week that, in some areas like energy efficiency in buildings, we do not need more innovation because we already know what to do, and we need clearer market signals. I think you referred to that earlier. Do you agree with that and, if so, is the strategy sending signals that are strong and clear enough?

***Claire Perry*:** I do not agree with that statement and I want to go back, if I may, to what the Chair has described me as saying about zero-carbon homes. We need far more innovation in energy efficiency. It is very striking that the technologies that we sign off and that promote the decarbonisation of our housing stock are quite old, mature technologies: things like cavity-wall insulation, double-glazing and condensing boilers. There is a world of innovation out there. Thermally efficient paint that you can apply to the outsides of buildings is being developed in Israel. There are ways to wrap fuel-inefficient buildings, particularly in rural areas like the one I represent, in different forms of material.

We need a lot more innovation in that space. That is why I am extremely keen to drive forward that innovation. In the industrial strategy yesterday, if I can just refer to the construction sector deal that is in there, a big part of that is to see how we innovate in creating new building processes and materials, and additional processes and materials. We have a lot more innovation to do and there is a huge market opportunity for us to export this technology.

Q83 **Drew Hendry:** You have listed a lot of areas of innovation there. Why did you allocate a third of the innovation funding to transport?

***Claire Perry*:** If you look at our carbon-emissions pools, homes account for 13% of our current carbon emissions; transport accounts for 24% of our current carbon emissions. There is a very big step, as you will know, Mr Hendry, going on in terms of the way that our car manufacturers are innovating and changing their powertrains. Britain is a global centre for automotive R&D and research. We have invested substantial amounts of money in things like the Faraday Challenge. It is the second biggest pool of emissions to target, and the opportunity to work with our auto industry, which employs a million people now in high-productive jobs, is really high. We want to make sure we capture the innovation here, for our own emissions reductions, and we help those companies innovate to protect those high-value jobs right across the country and export the technology.

Q84 **Drew Hendry:** Given that you have said it is a big step, is the balance right in terms of the extent of the challenge of decarbonising homes and industry? Is that commitment in terms of transport right, to catch up on years of delay in tackling the decarbonisation of transport?

***Claire Perry*:** Looking at the reduction in transport emissions, we have reduced emissions on a per-vehicle basis quite substantially. The problem is that we have a lot more cars on the road. The signalling in the strategy of the requirement to get out of fossil fuel cars in this country is really important. There is definitely more work to be done. I would love more innovation money. It was great that the Chancellor, last week, made another commitment to increasing R&D—the biggest commitment ever made by a Government in R&D spending—and that is coming to help some of these through the Industrial Strategy Challenge Fund, such as the construction sector, as I mentioned.

Q85 **Drew Hendry:** We will go back to where I started questioning. You said that you think we have a 100% chance of meeting the fourth and fifth carbon budgets. What chance do you think we have of meeting the 2050 80% emissions target? All the models that have been put out recently and all the scenarios say that we need carbon capture and storage to meet our carbon budgets in the late 2040s, hence the need to be developing and demonstrating carbon capture as soon as possible. Yet the clean growth strategy only allows £100 million for carbon capture and storage innovation, significantly less than the £1 billion previously promised under the cancelled Peterhead CCS competition. How do you make those changes happen that will enable us to achieve those targets?

***Claire Perry*:** To clarify, I am 100% confident that we will achieve our carbon budgets. I cannot speak for members of the team but, based on what I have seen the Government doing and what I see as the commitment out there in our businesses and our civil society, I am 100% confident that that is a fair prediction.

On the point about carbon capture usage and storage, it is apparent to me, after a lot of work on this with the team, that there are 21 CCS plants operating globally. Sixteen of them rely on revenue from taking the CO2 and using it to create enhanced oil recovery. That is how they operate. That is their finance. That is how they are economically viable. The other five rely on very substantial Government subsidy. What I am told about the competitions—and I cannot speak about them—is that it was impossible to get to a cost-effective risk-sharing mechanism that was affordable.

What has changed since then is that organisations like the Oil and Gas Climate Initiative—a group of the 10 largest fossil fuel companies in the world—have come together and committed £1 billion to this technology. We have decided that the innovation required in this space, because this is pretty old technology, really needs to happen and, again, is something where Britain wants to lead the world. That is why we are setting up the CCS Council before the end of the year and we are absolutely determined to drive forward technological change. We do not want to burden consumers and businesses with the cost of technology if we can see a way to get the cost of technology down.

Q86 **Drew Hendry:** How can you drive forward that technological change? Carbon capture and storage clearly meets the triple test that you outlined earlier.

***Claire Perry*:** Not at the current price, it does not.

Q87 **Drew Hendry:** How can you get to a world-leading position when you are looking to invest less than 10% of what was previously allocated to that technology?

***Claire Perry*:** With £1 billion of private-sector money investing in this area that was not available at the time of those competitions.

Q88 **Drew Hendry:** Can you guarantee that money just now?

***Claire Perry*:** When I met the Oil and Gas Climate Initiative and spoke on its panel, the CEOs of BP, Shell, Repsol and Saudi Aramco made some pretty fundamental public commitments that that was the amount of money they wanted to spend in this space. I have not done their accounts but I am confident that they want to bring that money forward.

Q89 **Drew Hendry:** Like the confidence for hitting the fourth and fifth carbon budgets, this is also a hope that you have, rather than a strategy to achieve it.

***Claire Perry*:** I would hope this money will be deployed. Sorry, I do not really understand the question. Am I confident that they are going to stand by the financial commitments they have made? Yes. Do I think that will have a material impact on the way that we do carbon capture and storage? Yes, I do.

Q90 **Drew Hendry:** What I am trying to get to is whether you can guarantee a package that will unlock that same amount of carbon capture and storage development with the commitment that has been made here, as opposed to the commitment that seems to be required in order to do it. Can you guarantee that today?

***Claire Perry*:** I do not know what price the gentleman wants to pay for carbon capture and storage. We want to deploy this technology because we cannot achieve the emissions reductions without it; we all understand that. What I am told is that, under the triple test, you cannot deploy carbon capture and storage cost effectively now, and that is proven by the fact that only five plants globally are operating without using the CO2 in other forms as a revenue source. Do I think there are opportunities to change the technology? Yes, both in terms of how you capture but also in terms of how you produce it.

If you look at the 8 Rivers gas power plant that is now operating in Texas, to which the Government gave £60 million of innovation money, because it is a British idea, yes, you can do things in a different way. We are very committed to deploying that and making sure we are technological leaders in that space.

Q91 **Drew Hendry:** Let me finish so that the Committee can move on. Are you saying that more money will be available? Are you making a commitment to carbon capture, other than has been stated in the Budget?

Claire Perry: I have committed other people's money—£100 million of taxpayers' money—to go towards CCS.

Q92 **Drew Hendry:** It is 10% of what was previously committed.

Claire Perry: In this document, I have committed £100 million, and that is the only commitment I can make because I am a fiduciary steward of other people's money.

Q93 **Chair:** Minister, do we need carbon capture and storage to meet our carbon-reduction plans, in your opinion?

Claire Perry: On my current understanding of the technology, yes.

Q94 **Chair:** It is really important that we manage to deploy carbon capture and storage, because that is necessary to get from 93% to 100%.

Claire Perry: Yes.

Q95 **Chair:** That is fine; I am genuinely just interested. I think that carbon capture and storage is necessary to achieve this. I guess I would share some of Drew Hendry's concerns about, given how important it is to get to our target, whether the support is being put into it, so I would just like that to be on the record as well. You understand the importance of it. Hopefully, what is already available to support it will deliver but, if not, that is clearly something that we will need to come back to.

Q96 **Peter Kyle:** It is good to see you, Minister, and thank you for coming with your team. Just to quickly finish up on that, the CCS competition was £1 billion of Government money that had been pledged and was then cancelled, so your Government has reduced the amount of money spent on CCS by 90%.

Claire Perry: My understanding was that that money was then recycled into the R&D package on the basis that there were better opportunities—and I go back to the constant dual-hattedness of this—to invest in a way that reduces carbon but does not drive up bills for consumers. I was not in the department at the time but my understanding is that that money was repackaged into innovation and is starting to bear fruit.

Q97 **Peter Kyle:** It will be allocated and spent elsewhere.

Claire Perry: Yes, on carbon-emissions reductions.

Chair: But not on carbon capture and storage.

Q98 **Peter Kyle:** That is the point. Going back up to the top, when the Department of Energy and Climate Change was wound up by the Prime Minister, and the brief was put into BEIS, there was a lot of talk about it losing influence and the ability, with your department and your brief not being carried specifically by a Cabinet-level post, to have influence across Government. Now that we have the clean growth strategy—not a plan, as Mr Coaker pointed out—this is the first really great test of your influence as a Minister and as a team. This is why our Committee is so keen to test out exactly how you are going to deliver it, because we see two things.

We see a department with a diminished level of responsibility—it is no longer led by a Cabinet post and does not have its own department—and the weight of your responsibility being increased, because you have to influence other departments that are delivering parts of your strategy. Can you give me a reason why demoting this brief from a Cabinet post and its own department to your ministerial position at the moment is increasing your ability to deliver your strategy?

Claire Perry**:** I will ask Tim, who sat through the transition. I can point you, Mr Kyle, to the fact that the foreword to this document was written by the Prime Minister. The Prime Minister has missed no opportunity to speak about the importance of climate change and the importance of clean growth.

Q99 **Peter Kyle:** Have you met the Prime Minister to talk about the plan?

Claire Perry**:** Yes, I have.

Q100 **Peter Kyle:** How often do you meet to talk about the delivery of it?

Claire Perry**:** I meet the Prime Minister's team frequently.

Q101 **Peter Kyle:** No, the Prime Minister, not the team.

Claire Perry**:** I have met the Prime Minister several times.

Q102 **Peter Kyle:** In what period?

Claire Perry**:** I met her to discuss what we were going to publish.

Q103 **Peter Kyle:** Was she involved in the drafting? Did you brief her?

Claire Perry**:** Of course. Her team had to sign off on this. This had to go through an extensive—

Q104 **Peter Kyle:** Minister, you are being slightly slippery here: not the team for the Prime Minister. I worked in the Cabinet Office for a couple of years, so I understand the difference between the team and the Prime Minister. How many times did you meet specifically with the Prime Minister and have you communicated about the strategy directly with her?

Claire Perry**:** Do you count conversations in the lobby, Mr Kyle?

Q105 **Peter Kyle:** No, I would not, no.

Claire Perry**:** You count being called in to speak to the Prime Minister.

Q106 **Peter Kyle:** No, having a meeting with officials that is minuted.

Claire Perry**:** With officials or with the PM?

Q107 **Peter Kyle:** Have you ever had a meeting with the Prime Minister about policy where there were not officials present?

***Claire Perry*:** Yes.

Peter Kyle: Really?

***Claire Perry*:** Over a drink in her flat, where I said, "This is very important, Prime Minister", and she agreed.

Q108 **Peter Kyle:** How many official meetings have you had about your brief, with officials present, which you can be accounted for?

***Claire Perry*:** I will have to go back and check. Do you mean with the PM or with the team?

Q109 **Peter Kyle:** The PM.

***Claire Perry*:** Have I met the PM with officials there to discuss this brief? No. Have I met the PM's policy adviser and chief of staff to discuss this brief? Yes. Did the Prime Minister see this document and approve it before it was published? Yes. Did she write the foreword? Yes.

Q110 **Peter Kyle:** That is all I wanted. Thank you so much. Let us crack on, otherwise we will never get away.

***Claire Perry*:** But you posed three questions to me. First, do I think the level of responsibility is diminished? Secondly, have we lost the ability to influence the rest of Whitehall? I can share with you, Mr Kyle, what was said to me by other Ministers at COP, which is, "What a great idea, putting climate change and energy together with business", because it exactly encapsulates how we are going to benefit from doing this, which is through clean growth, which you need the private sector involved in. If you want to see how important this is, pick up the industrial strategy and look at what one of the four fundamental challenges is.

Q111 **Peter Kyle:** Well done for changing the subject again. Let me just move on because we have to cover a lot, and you have answered the question.

***Claire Perry*:** No, I do not think I have.

Peter Kyle: In your own way, you have.

***Claire Perry*:** You asked me whether I think the move of DECC into a bigger department—a more influential department—in any way diminished this Government's commitment. It has 100% not; 180 degrees the opposite: it has enhanced the ability of this country to lead on the clean-growth agenda.

Peter Kyle: Let us test that out. Your strategy can only be delivered if other departments do their bit and implement. We know this is a strategy, but do you have a delivery plan, a project plan, for all the commitments you are making and how they will be delivered, with a structured plan underneath it? Do you have, secondly, a Cabinet sub-committee or a Cabinet committee that is responsible for co-ordinating the role of Government and all the other Government departments, by which they will come and answer for their deliveries over a quarterly period?

Claire Perry: If I can refer you to page 132 of the plan, which sets out all the actions and milestones we will be bringing forward, given my background, you will not be surprised to know that has been translated into an unbelievably detailed action plan. An inter-ministerial group has been reconvened, with extremely enthusiastic members, including other departments like the Department of Health.

Q112 **Peter Kyle:** Who chairs that?

Claire Perry: I chair it.

Q113 **Peter Kyle:** You chair it, so it is not Cabinet level.

Claire Perry: It needs to be done by the Ministers who will get out and deliver the policies, so it has members like the Minister for Environment and the Minister for Transport responsible for this brief. It is those of us who have the day-to-day responsibility for delivering it. Do you want to talk about what happens at official level?

Tim Lord: Yes. I was at DECC for the entire time that department existed and moved into BEIS. The Minister is absolutely right in terms of the primacy of this agenda within the department. Our Secretary of State has a very longstanding interest in this agenda and it does not feel like a downgrade from that point of view at all. Secondly, we are working very closely with other departments, so we have established groups working across BEIS, Defra, CLG, Treasury and a number of other departments with a close interest in it. We are really seeing that interest developing, and the work on the clean growth strategy has demonstrated that.

I was involved in the 2011 carbon plan, and one of the critiques of that was that it was a very DECC-focused document. If you see the commitments that are made in this plan on the natural environment, on housing and on transport, the level of ambition and the level of specificity here is a real step change from what we have seen in the past. For me, a lot of that is as a result of the creation of the new department.

Q114 **Peter Kyle:** Before I ask another specific question, let me just explain, maybe for your benefit, why I personally and this Committee are so concerned about this. Eighteen months ago, or maybe a little bit longer, we had the ministerial team from your department here talking about the productivity plan. I asked several questions about whether it had a Cabinet sub-committee; I was told, “No, it is not important”. I also asked about whether there was a project plan underlying this; I was told, “No, that is yesterday’s thinking. It is all in hand” and that every one of the points in the productivity plan would be met. When I pushed on some of these issues, in a very polite way, the Minister from your department responded by saying that they were going to put a complaint in about me for being irrelevant and asking irrelevant questions, and that this was all in hand.

Now, 18 months later, we have had the largest fall in productivity since records began. I have only been an MP for two and a half years, but I am getting pretty fed up with Ministers coming here and making claims. I want to see that the plan is there underneath it, which is why this Committee is now so driven to test whether Ministers have the plan underneath their commitments so that we can have credible faith that it can be done. That was not a question. That was just for you, to explain why we are testing this so much, because already we have been through this a few times, with the department itself.

You have committed now £2.5 billion for innovation in clean growth. Is any of this money new, or how much of it has been committed already and is now packaged up into the strategy?

***Claire Perry*:** It was taken from a high-level series of cross-departmental commitments to a group of commitments that are much more focused and results driven. I would never put in a complaint about my honourable friend. In my view, all this has to stand the test of time and has to stand the test of, God forbid, Government changes and everything else. That is why, if you have a statutory responsibility to deliver, you have to have plans and policies that can be taken forward, regardless of who is sitting in the ministerial chair or in the DG box. To reassure you on this point, this stands or falls based on the actions that are brought forward and delivered.

Q115 **Peter Kyle:** Yes, and some of us might still be on this Committee when the next ministerial team is here, and we cannot call you back and haul you over the coals for not delivering certain aspects of it. That is why we need to make sure that the robust structure is there now.

A lot of this money is being spent on supporting implementation as well as introduction. Why is there not more money being spent on or resources going into pre-commercial demonstration or trialling?

***Claire Perry*:** To reassure you, Mr Kyle, there is a lot of money going into early-stage innovation. One of the things I am very keen to do is publicise those companies and those opportunities where we are investing other people's money, and I will bring forward, hopefully in the first two months of next year, a new portal where investors and everyone else can see the level of innovation that is going on. I think it is important that we show a route to market. Money is being spent in the R&D stage, the scale-up stage and through the deployment. I am very keen to use the public sector as a route to market, and one of the announcements in the Budget that people may have seen is our commitment to have the public sector transport fleet be 25% electric vehicle. If we can use public sector procurement to pull through some of this innovation as a route to market, that is a good thing.

Q116 **Peter Kyle:** Briefly on energy, British energy-intensive industries are paying more for their energy than some of their competitors abroad. Energy-intensive industries can currently seek 90% exemption on the climate change levy, and they are also compensated for some of the costs of other policies. Where does the balance lie in ensuring businesses can compete but also driving down carbon emissions?

***Tim Lord*:** Mr Kyle is absolutely right that energy costs are an issue for energy-intensive industries. It is worth being clear that gas prices in the UK are among the lowest in the European Union, but we recognise that electricity prices are higher. As you say, a number of the most energy-intensive sectors, under their climate change agreements, can get exemptions from a significant proportion of those costs. Similarly, in terms of renewable subsidies, they can seek relief of up to 85% and we have provided over £570 million of relief since 2013.

The link to the industrial strategy is absolutely critical here, because these industries have an absolutely vital role to play in the low-carbon sectors of the future, whether that is steel manufacture, cement or other things. In terms of the kinds of sectors that we want to emerge, those industries have a role to play in their supply chains. One of the key things in terms of the creation of the new department is really bringing that thinking together, so we are thinking about how those energy-intensive sectors can play a role in the low-carbon-sector supply chains of the future.

Q117 **Peter Kyle:** You mentioned electric vehicles a few times. Clearly, that is something which you, as a department, are focused on and proud to be talking more about. Why are other countries like the Netherlands outstripping our ambition in this? The Netherlands wants a date of 2030 for ending production of fossil fuel cars. Why are we not doing the same?

***Claire Perry*:** It is a really interesting question. A game of confidence is going on. France was the first to announce its phase-out by 2040. We have matched that, and it was not without pushback, because we have a very substantial manufacturing industry making fossil fuel engines. We had to work very closely with our industry partners—I chair the Automotive Council—and invest money in things like the Faraday Challenge to get the next generation of battery technologies. The Netherlands has now come out, post our announcement, so we seem to be slightly in a game of who can jump fastest.

We are very keen, as, unlike the Netherlands, we have a very substantial car-manufacturing base here, to make the UK a place that has the best charging network in the world, because range anxiety, along with costs, are the two things that people care about when they are buying cars. We have been taking powers through the automated vehicles Bill. We also want to make sure that we are making those vehicles. We already make one in five electric vehicles sold in Europe in the UK, and we want to make sure that, as that technology evolves—a lot of it is linked to connected and autonomous technology—we are at the forefront of that.

Q118 **Peter Kyle:** The cost of electric vehicles is plummeting and the market is maturing at a faster rate than we had thought even two or maybe three years ago. To what extent are you following the market and to what extent are you shaping the market? Right now, this is a market the Government should be pushing harder and shaping more quickly. It seems that, as with offshore wind, we have been caught on the hoof.

***Claire Perry*:** I have to disagree. We are spending £1 billion—that is taxpayers' money— to support the take-up of ultra-low emission vehicles, including purchase subsidies and including support for people installing charging networks. We have committed to invest an additional £80 billion to support the infrastructure for charging, taking new powers to make sure that the grid is ready for this.

Q119 **Peter Kyle:** On that infrastructure, have you got the split between motorway charging points and urban and rural? You have not been specific about that.

***Claire Perry*:** It is a very good point. The ultra-low emissions vehicle group is co-sponsored by BEIS and DfT. We are going to be working together to make sure that we have got that deployment right, because there is an argument that says—many local councils want to do this—that you just flood a local council with electric and you also make sure that neighbourhood plans are really focused on making sure you have enough charging infrastructure. Another argument says you just space these out, so we need to be very dynamic about it. The sense, is that we are doing enough and, indeed, are probably ahead of the curve in doing this, but these vehicles are still expensive on a like-for-like basis, and we need to work with the manufacturers to get the costs down.

Q120 **Vernon Coaker:** To follow up from what Peter Kyle has just been saying, one of the more general points from the Committee has been the difference between a strategy and a plan, which sounds like semantics, but all of us have been trying to get to what the policies are that will deliver the change that we all want and fill that gap that exists.

Just to give one example on transport, the Government's policy is decarbonising transport by 2040 in terms of the ban of the sale of petrol and diesel vehicles. There has been some suggestion of other countries, as Mr Kyle was saying, doing that before. Why did we choose the date 2040? Is there any possibility of moving that date forward from there? Would that not be one example that the Government could use to say, "This is one way in which we are going to accelerate the reduction in transport emissions that is crucial to the achievement of our targets"? That would help address some of the concerns we have as a Committee about the fact that we have a gap and we are not clear about how we are going to close it at the current time.

***Claire Perry*:** Policies 22 to 31 are quite specific policies about spending, funding, taking back powers and trying to drive this low-carbon revolution in transport. 2040 was chosen because we wanted to not unfairly burden the automotive manufacturing sector, which is a vital source of empowerment in many of our constituencies, with changes that would impinge on its current model planning. What happens is this: you set an ambition, and the market responds. Of course, after we set this ambition, we had Volvo coming out and saying that all of its vehicles would have an electric motor by 2020, and BMW saying it would build the electric Mini at Cowley rather than in Germany. The market is already responding. My sense is that, as the markets respond, costs drop and range anxiety diminishes, we will see an increase in updates in electric vehicles. All the forecasts so far may have been wrong, and it may be possible to change that target.

Q121 **Vernon Coaker:** Does that not rather make my point? You have set a target of 2040 and the market has responded in those ways. Just to speculate, if you set a target of 2035, would that generate an even greater response?

***Claire Perry*:** This is the first target we have ever had. You can always learn from setting these targets, just as we have set the target for household efficiency. Successive Governments have been lobbied to never set these targets and to respond to the market. The evidence from California, when the switch was made to lead-free fuel, was that, by setting these targets, Government changes behaviour. It does not mean that you cannot go back and revisit them, but we should be really proud of the fact that we were the second country in Europe to set this kind of target.

Q122 **Vernon Coaker:** Part of what we are saying is to try to meet the targets that we have, because we all want to ensure that we meet those targets, and we do not want to take our foot off the pedal, if that is the right way of putting it, with respect to all of this. There is a gap there that we want filling.

Q123 **Albert Owen:** I am conscious of time; I will try to be specific on two issues. You touched on energy efficiency and heat in your earlier replies. On the subject of energy efficiency in homes, the energy-efficiency measures talk about being practical, cost effective and affordable. Does that mean that you will not be bothering to improve hard-to-treat homes? These are often off-grid and often have the worst energy performance and the highest carbon emissions.

***Claire Perry*:** They also contain a high proportion of people living in fuel poverty. In order to meet our manifesto commitment, my intention is to take the £3.6 billion of money available through the energy company obligation out to 2028 and spend as much of that as possible on treating fuel poverty, which, as you say, Mr Owen, is often a problem in rural areas.

Q124 **Albert Owen:** I understand that, and that has been successful for many years, but what I am talking about are those that are not covered by ECO. If you are going to reach a target, it is not the occupants you want; it is the buildings that are up to standard. What is your plan to improve energy efficiency in the worst housing stock in the UK?

***Claire Perry*:** We can pull through policy levers requirements to upgrade social housing stock, which we have done, so that will be treated. We can put some legislation around rented properties, which we are doing. Ultimately, as we will both know from our constituents, you can tell private owners as much as you like that they should be upgrading their homes and they are spending too much on their fuel bill.

Q125 **Albert Owen:** What will the Government be doing?

***Claire Perry*:** This is what we will be consulting on next year. We want to bring forward a series of incentives and possible legislation to change this. Tim, do you want to talk about the consultation timetables?

***Tim Lord*:** Exactly as the Minister says, the clean growth strategy sets out a series of commitments on both new and existing homes in terms of the consultations we will be taking forward. To Mr Kyle's point, we have published our project plan in this document. Unusually, in some of the annexes, we set out some of the timings for doing that and we will be bringing those forward in 2018.

Q126 **Albert Owen:** You have a consultation process to go through, but what sort of timetable are you looking at to assess the different types of heating technologies? You will know, Minister, that 80% of homes are heated by gas boilers at the moment, which is a fossil fuel, so what is the timetable for assessing the roles of different technologies on-grid?

***Claire Perry*:** It is a very good question because off-grid is a problem in my constituency. We set out, for the first time, that we want to phase out the installation of high-carbon forms of fossil fuels.

Q127 **Albert Owen:** Sorry, I will come to that in a second. Can I talk about the on-grid? As I say, 80% of houses that are on-grid have gas as their main form of heating, and that is a fossil fuel that emits a lot of carbon.

***Claire Perry*:** Yes, and there are opportunities to decarbonise it, particularly through the use of hydrogen and better sharing of waste heat, which is why we are spending money on heat networks.

Q128 **Albert Owen:** That is the theory, so what sort of practical plan do you have? Some of that is not proven technology. When I asked the question a few years ago, your predecessors were talking about geothermal for off-grid. Is there going to be a scrappage scheme for on-grid?

***Claire Perry*:** Forgive me; is the question: "Are we trying to get people who are currently on-grid off-grid?"

Q129 **Albert Owen:** No, the question is in two parts, but you jumped to the second part. The first part is: for those who are on-grid now and have mains gas as their main heating, what timetable do you have for replacement technologies to take over from that, so that we do not have it in the future?

***Tim Lord*:** First, there is a range of things we are doing on heat, and the Minister referred to the funding, for example, for heat networks, which can make a real impact there. Secondly, just to refer to the off gas grid briefly, that is one of the areas we know we will need to decarbonise and, in some respects, is more straightforward. The strategy sets out our commitment to do that. On the gas grid, we are looking at the various strategic options for how we address carbon emissions in those areas, and work is underway on that. I cannot say exactly when we will be bringing forward proposals on that, but the work we are doing through the renewable heat incentive, through our funding for heat networks and through our commitments off the gas grid show a genuine commitment and a new commitment to decarbonising heat, which we recognise is one of the most challenging areas.

***Claire Perry*:** We are quite lucky having the centralised grid. Our centralised grid system is seen as one of those great British things that give us the ability to reduce carbon emissions more easily, potentially through using carbon capture and storage technology, which is another way to decarbonise heat, and potentially through using hydrogen. What is interesting is the innovation funding: the £184 million that we are spending in this area on things like hydrogen boilers.

Q130 **Albert Owen:** That means replacing existing gas boilers with hydrogen boilers.

***Claire Perry*:** Potentially, yes.

Q131 **Albert Owen:** It is a big project, and 13%, you said, of carbon emissions come from homes.

***Claire Perry*:** Correct.

Q132 **Albert Owen:** On the off-grid, I really want to push you on this. If you are going to eliminate the fossil fuel heating systems—oil and things—why is one of your flagships shale gas? Do you see that as a transitional fuel?

***Claire Perry*:** Sorry, you are asking me lots of complicated but very good questions. We should not and cannot be building new properties off grid using fossil fuels. It is just crazy. We finally have to address that. I am one of these people who live off the grid in my constituency. We have to look at how we do that in a way that is affordable and effective, and does not require people making amazing changes to the way that they heat their homes. Starting with new build, we want to phase out the use of off-grid fossil fuel heating by the mid-2020s. Forgive me; I got passionately carried away about this because I want to solve my village's problem. I am afraid I have forgotten the second question.

Q133 **Albert Owen:** I just want to know what timetable you have.

***Claire Perry*:** That is the mid-2020s for that part.

Q134 **Albert Owen:** No, sorry, let me ask the question and you will hear it. For people like me who have a gas boiler, when it comes to the end of its use, I am going to replace it with a new gas boiler, because it is the most efficient and cheapest way to do it. What alternatives and incentives are you giving people like me to replace their gas boilers with non-fossil fuel ones?

Claire Perry: We have the renewable heat incentive, which is £4.5 billion of money available up to 2021, which incentivises people to replace existing fossil fuel technologies with low-carbon fuels. We also have improved standards—

Q135 **Albert Owen:** I know we are short of time, but where is the delivery plan from that? When we first went into recession, we had a scrappage scheme for boilers. Are we going to have one of those: a carrot and a stick?

Claire Perry: We have improved, legislatively, the standards on the 1.2 million new boilers installed every year in England. Often, the move, particularly in fuel-poor households, from an inefficient heating system to an auto-condensing boiler is substantial. You asked me a question about fracking, Mr Owen.

Q136 **Albert Owen:** Yes, I did.

Claire Perry: I find it very perverse on fracking. I have said this before and I will say it again. We are passionate about asking people to accept the science of climate change. We have big debates with people about: "Why will you not believe the scientists?" We are drilling test wells to understand whether the scientists were right: people like Sir Robert Mair, one of Britain's leading scientists, who wrote the review of fracking safety and concluded it was a safe form of extraction. We are doing test wells to prove whether he was right and whether it is worth pursuing, yet we passionately do not allow that scientific evidence to go forward. We stop it with protests that block roads and stop little children going to hospital. It is disgraceful.

Q137 **Albert Owen:** Let me take you a step further than that. You raised the issue. I was on the Committee in 2010-11 that did an inquiry into shale gas, and the Government sat on that document for a long time, so it did not proceed on it. That was a Conservative-led Government, so it is no use blaming the protesters now. You did not take it forward for many years. My question to you is a straightforward one: you are trying to get rid of fossil fuels, so this is the perverse thing in my opinion. Why are you encouraging the exploration of further gas? Is it for transition?

Claire Perry: We are not trying to demonise fossil fuels.

Albert Owen: I am not talking about demonising it.

Claire Perry: We believe that we have to have a reduction in our emissions. We have to do that in a way that does not put up prices. We are not going to make commitments like Germany, saying "no new nuclear".

Q138 **Albert Owen:** Can you just answer this: do you see shale gas as a transition fuel?

***Claire Perry*:** Yes.

Q139 **Rachel Maclean:** One of the cheapest forms of renewable technology—and you talked about the triple test—is onshore wind and solar technology, but we have seen that, in the election campaign, the Government removed their support for onshore wind technology. There has been criticism, maybe for political reasons around upsetting voters, and the Government have also removed support for the planning system, so it is harder for these technologies to receive planning. You have talked about the very important role of subsidy-free onshore wind and solar, so will the Government allow these technologies to compete on a level playing field for the contract for difference auctions? That is what the industry has asked for, to bring forward finance.

***Claire Perry*:** We have a manifesto commitment on which we were elected to not have any large-scale onshore wind farms in England. I am very aware—Mr Hendry has gone—that there are other parts of the country where there is planning consent for and an opportunity to provide onshore wind.

Q140 **Rachel Maclean:** Minister, what is "large scale"?

***Claire Perry*:** I will have to write to the Committee with what the definition is, unless you happen to know it, Tim, in terms of the volume.

***Tim Lord*:** Not specifically, no.

***Claire Perry*:** The problem we have is this: under the current CFD rules, it is impossible to bring forward geographically specific wind farms much as we would like to. I agree that onshore wind is absolutely part of the future and my hope is that we can deploy it in a cost-effective way, as with all these things, and with the right planning consents. I would disagree with you, Ms Maclean: I think that the planning system is now sufficiently strong to allow communities that object to not be overruled. I am working on ways, with the team, to see how we might bring forward onshore wind, particularly from areas of the UK that want to deploy it, because I agree that it is an important part of the mix.

Q141 **Rachel Maclean:** Minister, communities have to proactively opt in to wind by identifying suitable sites. Would you not agree that this makes it more difficult for communities?

***Claire Perry*:** Having lived through the political dramas about this since 2010 and seen, every time we wanted to talk about clean growth, it land on a shoal of pictures in newspapers of onshore wind turbines, it is right that we have given communities sufficient strength to opt in. There are communities that have opted in and I would like very much to buy that wind, but the current structure of the auction is not sufficiently finite to allow us to do that.

Q142 **Rachel Maclean:** What about solar?

***Tim Lord*:** As the Minister has said, no decision has been made on future auctions for established technologies. One thing that is extremely encouraging is that we are starting to see solar deploying without subsidy in the UK. We have seen that in other countries and we are starting to see that in the UK. The UK energy-bill-payer has made a major investment in solar and we are starting to see that deploying without support, and that is a trend that we would welcome. It demonstrates that the strategy that the Government have followed over recent years has been effective in terms of driving down the costs of some of those technologies and enabling them to deploy without subsidy, which, ultimately, needs to be the objective for all of them.

***Claire Perry*:** The thing with solar is the onsite storage. The Clay Hill solar farm is subsidy-free, and that is the way you make the subsidy-free package work. We are working with the regulator to look at all the various impediments. Again, I am slightly off my portfolio, but the double-charging regime, if you are a storage facility, needs to be removed, because we are keen to bring forward more solar.

Chair: Thank you very much. We have enjoyed hearing evidence from you today, Minister, and from your officials. You have ambitious plans but it is clear that more needs to be done to meet the fourth and fifth carbon budgets in a number of areas: carbon capture and storage, where funding has been cut; energy efficiency in homes; and a route to market for new technologies to power our economy. We look forward to having you back in front of us in the future as your plans evolve in those areas and others. Thank you.

***Claire Perry*:** I shall look forward to the grilling. Thank you.