## Welsh Affairs Committee

Oral evidence: Nuclear energy in Wales, HC 240

Wednesday 22 February 2023

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## Watch the meeting

Members present: Stephen Crabb (Chair); Simon Baynes; Virginia Crosbie; Geraint Davies; Ruth Jones and Beth Winter.

Questions 209 - 244

## Witnesses

I: Alan Raymant, Chief Executive at Cwmni Egino, and Simon Bowen, Industry Advisor at Great British Nuclear.

## Examination of witnesses

Witnesses: Alan Raymant and Simon Bowen.

Q209 **Chair**: Good morning. Welcome to this meeting of the Welsh Affairs Committee, where today we are concluding our inquiry into nuclear energy in Wales. We have two panels this morning. I am delighted to be joined for the first panel by Simon Bowen, who has been advising the Government on the establishment of Great British Nuclear, and we are also joined by Alan Raymant, chief executive of Cwmni Egino. Welcome to both of you, and thank you very much for giving us your time and insight this morning.

I will start the discussion by asking each of you about the recent changes within Whitehall departments and the new Department for Energy Security and Net Zero. Do you think this injects new momentum and focus in terms of the UK Government's energy policy, or is there a danger of just shuffling around while actual decisions are not being taken?

**Simon Bowen:** Good morning, and thank you for the opportunity to share some thoughts. All of this is my opinion, because I advise Government, I do not represent Government.

What I said in the Department for Business, Energy and Industrial Strategy Committee was that I was concerned that Government lacked an overarching strategy on energy security. There seemed to be more of a conversation about tactics, about how you set up a nuclear programme. I think this news is overwhelmingly positive, because it recognises that energy security and energy resilience are a critical part of what we have to do. Setting that alongside net zero is, for me, pretty compelling. I believe there are going to be some announcements, in the short term, about Ministers that are going to be more focused on nuclear. Again, that was one of the recommendations we made in the report. If all of that happens, then I do not think it is a simple shuffling of the deck. It is a strategic move, which will really support what we need to do, because we have got to start moving.

Q210 **Chair:** Thank you very much. Mr Raymant, would you share that positive view?

**Alan Raymant**: I absolutely agree. I think it provides a sharper focus on what we are endeavouring to do. The challenge is just making sure that the transition is as smooth as possible, so that we see the benefits emerging as quickly as we can.

Q211 **Chair:** Mr Raymant, by way of introduction, I should have mentioned that you had previous involvement to a very high degree in the efforts to get a new development going at Wylfa.

Alan Raymant: Yes.

Q212 **Chair:** Given your experience and knowledge of the Wylfa site, does it feel to you like we are in a different space when we talk about a new

gigawatt scale project at Wylfa? If you go back 10 years or so, Ministers were being very positive about Wylfa. We were hearing lots of warm noises about its suitability as a site, but nothing happened. Is there a danger that we are going around the same mountain, or are we in a new space?

**Alan Raymant:** I think that danger always exists, and the key missing link is having strong sponsorship from Government. Ultimately, in some shape or form, it is going to have to offer some kind of contract or financing to support the project, and it is important to have clarity about that through the projects, right from the start and through to the end. That became clear in the original Horizon project, right at the end. The lesson is, that before we are able to embark on the development of any site, we must have clear evidence of policy translated into plan so that we know there are sponsorships there, and that when people are investing their money, they know there is a realistic chance of it bearing fruit. That will be the message, not just for Wylfa but for every site.

Q213 **Ruth Jones:** Mr Bowen, I will ask you first. Recently, at the Science and Technology Committee, you stated that there should be another two gigawatt sites after Sizewell C. Do you still agree with that? If so, where do you think they should be, and in which order should they be built?

**Simon Bowen:** That is a difficult question. Do I stand by what I said? Yes, but it was caveated, that the Government has got to decide what level of ambition it has now. Secretary of State Grant Shapps said in the Treasury Connect conference yesterday that the Government's ambition remained to have up to 25% of electricity nuclear-generated, which is great news. We need to be clear about what the scale of the ambition is. If the scale of the ambition is anywhere north of 16 to 20, if it is 16 to 24 gigawatts, then you do need gigawatt scale. I am still of the opinion that gigawatt is proven technology, and gigawatt projects have been built. Therefore, we should continue to look at gigawatts, and absolutely look at SMRs because SMRs do offer some very different options.

On siting, there is no question in my mind, Wylfa is a great site. Why? Because a lot of the work has been done at Wylfa to characterise how you would commercialise a new nuclear set of reactors, and of course, it is a socially accepted industry. I have done a lot of work at Wylfa A in my previous life, so I know the community very well. I know the site is well understood and well developed, so that is the first point to make.

There are other sites as well, which sit within the NPS, which would have to be considered. What would GBN's role be in that, if it were set up, because it is still not set up? Government need to make that decision, and in making that decision, decide what the scope is. In our recommendations, we said that GBN should take these national assets, which are the nuclear sites and potential nuclear sites, and we should make recommendations about which sites should be developed, and in which order. That work has not commenced yet, but in my view, Wylfa must be pretty close to the front of the queue. It is one of the best

understood sites in the UK and has all the constituent parts needed to make a successful nuclear project.

Q214 **Ruth Jones:** You say that has not come about, and I know my colleague across the way has been listening with great interest. I would just push you gently and ask when those recommendations will be made, because time is of the essence.

**Simon Bowen**: It depends on when it is set up. If we get going in the next month, then I believe we will be able to make recommendations in line with selecting the technologies that should be approached which could be towards the latter end of this year. The big caveat is that Government need to decide now whether it does, or does not, want gigawatt scale, or whether it wants to focus on SMRs, or whether it wants both. Those are policy decisions, and as soon as they are made, then we can start to move forward. What does that mean for Wylfa? The big decision is do you just do gigawatt at Wylfa, or do you do gigawatt and SMRs? There is space for both.

Q215 **Ruth Jones:** That is the next question. Should the next construction be the same as the previous Sizewell C, or should it be a different sort of construction and build?

**Simon Bowen:** It does not necessarily need to be, but it could be. What I have said previously is that we have to take a little bit of a step back and look at the optimum technology for the next gigawatt reactor. It may well be the EPR, which is the EDF design, but it may be another design. It could be one of the many that exists around the world. I think we need to have another look at those to make sure that we end up with resilience through the diversification of technology. That makes sense.

Now it may well be that through the analysis you end up saying, "Actually, it makes sense to go for a fleet of EPRs and get the benefit from that," but I do think we need to stop and check that the logic makes sense and gives us all the outcomes that we need.

Q216 **Beth Winter:** My questions are for Mr Raymant. Can you provide us with an update on the work of Cwmni Egino and in particular the development of a business plan?

**Alan Raymant**: Just by way of background, Cwmni Egino was set up by the Welsh Government essentially to develop socioeconomic opportunities at Trawsfynydd, building on the nuclear heritage. Over the past few months, we have been working out what the optimum solution might be to deliver that and coupling it with the British Energy Security Strategy and the target of 24 GW. We have set ourselves a vision to be one of the projects that the Government approve in the next Parliament and to be ideally the first lead site for SMR in the UK.

In saying that, we are not in competition with gigawatt, and we are certainly not in competition with GBN. We are presenting that opportunity and developing the case for it. That is where we are at the moment. We

are also developing what, in Treasury language, we call an outline business case that covers the financing required to take the project through to a final investment.

Q217 **Beth Winter:** When will that be completed, the development business?

**Alan Raymant:** We are working on that now. The first step would be to discuss it with the Welsh Government colleagues who have funded it so far, and then obviously with BEIS and GBN colleagues to understand where the project fits in to the overall programme. The most important thing for us is having the project in an overall UK programme sponsored by Government, otherwise it is very difficult. We could be in the same situation we described earlier, where we do development work with no certainty that the project is required at the end of it, so our priority is to secure that.

Q218 **Beth Winter:** At the moment, Trawsfynydd is not designated in national nuclear sites as part of the National Policy Statement. What action is being taken from your perspective to prevent this from hindering development?

**Alan Raymant:** I am aware that the Department for Business, Energy and Industrial Strategy is updating the NPS to expand the range of sites. The original NPS was very much targeted around sites suitable for gigawatt scale, which Trawsfynydd never was, so it is not included, but certainly the NPS review, as I understand it, is designed to encompass sites suitable for SMR. That process is ongoing, running in parallel with our work.

Q219 **Chair:** Just to be clear, Mr Raymant, Cwmni Egino is not a developer per se, but you would be talking to potential developers.

**Alan Raymant:** At the moment, we are the developer, we are developing the site. The big question is what Cwmni Egino will ultimately become, and a large part of the answer to that will depend on what GBN ultimately becomes, because we would need to fit within that overall UK programme umbrella.

Q220 **Chair:** But at the moment, the Welsh Government are the only equity holder.

Alan Raymant: Yes.

**Chair**: Thank you, that is helpful.

Q221 **Virginia Crosbie:** Thank you, gentlemen, it is an absolute pleasure to have you here.

In April of last year, when it was announced that Great British Nuclear was going to be formed, and the British Energy Security Strategy, it was a really exciting time. It was probably the most exciting thing to happen in nuclear for 40 years. Let us be honest, it was really important, and as you mentioned so eloquently in terms of the supply chains and

developers, everyone is ready to gear up and get involved. We just need the UK Government to take a lead and have a strategy, so why the delay?

**Simon Bowen:** We were tasked in May to produce a report for Prime Minister Johnson, so there was a 100-day sprint where we pulled in a group of experts from industry and from the civil service. We had a young, very vibrant team to pull that together. Unfortunately, when we handed the report in, or a number of days before that, Prime Minister Johnson resigned. It then went into the Truss Government, and subsequently, Prime Minister Sunak and Chancellor Hunt are now involved in the decision making. We have continued to develop what GBN could look like, and to advise Government on what it could look like, but it is a decision for the Prime Minister and the Cabinet to make. We have heard plenty of words to say it is going to be announced soon, it will be announced early in the new year, and I am hoping it is, because every week we delay is a week without a nuclear plant on the grid.

If, for instance, Hinkley Point had been operating last year, it would have saved the taxpayer, or the country, £4.5 billion. Those are big numbers, so delaying the nuclear programme is not good for energy security, and it is not good for consumers. We need a decision from Government to launch GBN as a Government programme of new nuclear. The word programme is very important. It has to be a programme of new nuclear builds, which allows us to set up an organisation, and has the funding to be able, as Alan was saying, to make sure these projects are a success, and that they are co-funded by Government, as are all the models we looked at through the GBN work. Internationally, Governments take a leading role. This is a major infrastructure programme and Government do need to take a leading role, so the decision needs to be made and it needs to be made quickly. I believe it will.

Q222 **Virginia Crosbie:** Could you kindly share with the Committee the engagement you have had with the new Department over the last few weeks, particularly given that we have the Budget coming up on 15 March?

**Simon Bowen:** My role remains as an adviser. There is a team I work with of civil servants and industrial secondees, and that team have been in continual dialogue with BEIS as it was, and now with the new Department, and in active conversations with the Treasury. We fully understand that the fiscal environment is very challenging at the moment, and we have said that you cannot set up GBN without the funding to support the development of the project. There is no point in setting up an organisation just so that the organisation can work out how it is going to operate, because that does not deliver any outcomes. What it has to have is adequate funding, and because the fiscal environment is the way it is, we understand that those discussions have been difficult and protracted.

Q223 **Virginia Crosbie:** My last question for you is about adequate funding.

What is the minimum amount you are looking for?

**Simon Bowen**: It depends on Government policy with regard to gigawatt and SMRs, but it is measured in a few hundred million. It is not billions to start off with, it is a few hundred million to get going, and critically, to be able to fund development and to support the projects.

Q224 **Virginia Crosbie:** Mr Raymant, in terms of your relationship with Great British Nuclear, how does that dovetail with your plans at Cwmni Egino?

**Alan Raymant:** The first thing to say is we are not in competition. It will need to be complementary. If we are going to make the programme work overall, we will need clear, strong sponsorship from Government, and the mechanism for that is through GBN. The key issue for us right now is understanding, first of all, that getting GBN set up is really important, and secondly, deciding what GBN actually intends to be as an organisation and therefore what the gaps are that the individual project companies will need to undertake. That is a conversation we have started, but we need to conclude that when we know what GBN will be and when it is set up.

Q225 **Geraint Davies:** Just for clarity, Mr Bowen, correct me if I am wrong, but I think you said that to get this going, you would need a few hundred million pounds. At the same time, you said the year's delay has cost £4.5 billion, is that correct? In terms of the loss of £4.5 billion, what is the overall budget for all this based on?

**Simon Bowen:** I may have conflated two issues, so apologies if that is the way it appeared. The £4.5 billion is one of the metrics we use to say, what is the value of nuclear? If Hinkley Point had been operating last fiscal year 2022-23, it would have saved £4.5 billion on energy costs simply because of the cost of electricity at the strike price that has been agreed and contracted. That is point one, but that is an interesting side piece of information.

I am not directly involved in the discussions which are very much between the Department and the Treasury, because I am advising. From what I know, there is funding that is absolutely required to form GBN. GBN will not be a huge organisation. It is going to be an arm's length body, and it will probably reach a maximum of a hundred people, but of course it has to have all the infrastructure that any independent body has to have. There is what I would call the revenue budget to set that up and to get that established. In the short term, we will need a lot of support from outside, because it will take us time to recruit. That is one chunk of cash that is required to allow us to get the organisation established, up and running and operating, with the aim of it supporting the Government to deliver its programme. That is No. 1.

No. 2 is, we recommended in our report that in line with international practice in the nuclear space, Government have to take a leading role and have to provide funding to support the development of projects, and Government have to take some of the risk. If you look at the various

stages of the project from the pre-financial investment decision, that is a really risky time when the project is uncertain and is developing in certainty in terms of regulatory requirements and therefore the cost of the project.

If you bring in private investment at that point, it is going to be very expensive. The cost of doing that is expensive. It therefore makes logical sense to bring Government funding in to reduce the cost of finance but, critically, to ensure that the risks are being managed where the risks lie. We cannot expect developers to take the risk on doing all the characterisation work in a site like Wylfa if there is no certainty they are going to get a project at the end of it. That was one of the main issues that happened in Horizon. Alan will be far better to comment on that.

Government have to take some funding there, and the pre-FID—pre-financial investment decision—funding will need to be shared between Government and the private sector, but the private sector will not invest unless it sees that Government are committed to the programme and that they are also prepared to invest in their infrastructure. That is the money I am talking about, which could be a few hundred million. The number will depend on the policy of, do you want to do more gigawatts, yes or no? If you want to do SMRs in parallel with that, how many SMRs do you want to do? In my view, it cannot be one technology, because they are not proven. Does that answer your question?

Q226 **Geraint Davies:** How big a cake is a few hundred million out of? I know it is the early seed funding. How much Government funding will there be in the whole project, as a proportion?

**Simon Bowen:** That is very difficult to determine, because it is policyled. Is it going to be measured in billions across a whole programme? Yes, it will, because it is a major programme, and these projects are very expensive projects, so yes is the answer.

Q227 **Simon Baynes:** Thank you, gentlemen, for coming this morning. I just wanted to look at the need for a utility developer. My first question is to Mr Bowen. What conversations have you had with the UK Government regarding a utility developer for nuclear sites? I suspect you have already answered the second part of my question, but is this a role that Great British Nuclear could take?

**Simon Bowen:** We have had extensive conversations about what the role of Great British Nuclear is and that for many of the newer technologies a developer does not exist. Who has the capability? The only real developer in the UK at the moment is EDF and the Sizewell C project, and they are going to be flat out on getting those two projects delivered. We need the capability to initially form a development company within GBN. How will that move with time? I do not see for one minute we would be an operator or a utility, but we may have to reserve that until we attract other people into the market.

In the early stages of development, we will act as the developer, but if you take the example of Cwmni Egino, the first thing we would be doing is looking at the capability that Cwmni Egino has and that GBN has, and then form a bespoke development company between us with the aim that GBN in time would withdraw out. When you get to something like a financial investment decision, we would hopefully bring the Government money out and reinvest it right at the start of the programme, and, equally, there would be sufficient external involvement and external capability developed so that GBN could start to withdraw its resources and focus on the next project in the programme. Does that answer your question?

Q228 **Simon Baynes:** Yes, it does, thank you. Mr Raymant, could Cwmni Egino evolve into a company that would hold a nuclear site licence in order to achieve its aim of building the first SMR at Trawsfynydd?

**Alan Raymant:** Thank you for the question. Yes, it is possible. That is what we did in Horizon. We built that, but it is a tough thing to do. My personal view is that it is not particularly economically efficient to do that on a project-by-project basis, particularly at the smaller scale. There is a question to be answered around what is the operator licensee solution for an SMR fleet? We know how to do it. The question is, how do we want to do it? Do we want to do it on a project-by-project basis or on a fleet basis?

Q229 **Simon Baynes:** Mr Bowen, you told the Science and Technology Committee it is possible to circulate Government investment back around. Can you expand on this and how it might work in practice?

**Simon Bowen:** It is very early stages in the financing model. We are talking about over a 10-year period. The point I was trying to make is I do not believe this should be grant funding. I think it should be invested, and there should be the expectation that the private sector would come in and replace Government. Why is that so important? I do not want Government or industry to think this is just an open chequebook. It has to have an end to it where, when the risks are sufficiently understood, the private sector puts in the bulk of the funding and the public sector money is seen as the funding that supports the early-stage development.

Q230 **Simon Baynes:** To put some sort of parameter on that, how much money would the Government need to earmark for nuclear investment?

**Simon Bowen:** Until we know the scale of the ambition and what the policy is, you cannot give a number, but I have indicated that to get a development programme up and running, it is measured in a small number of hundreds of millions. To do the full programme is a number of billions. The broader issue that Treasury is facing is that these projects all sit on the balance sheet. The balance sheet treatment and the ONS recommendations are the leading issues we have to overcome. One of the prime workstreams we would be launching, as and when Government

say they want to do GBN, will be finance and funding and help all those mechanics work.

Q231 **Simon Baynes:** How do they manage the balance sheet in France? **Simon Bowen:** I am really not sure. I could not answer that.

Q232 **Simon Baynes:** Mr Raymant, is there anything you would like to add to that?

**Alan Raymant:** The way I tend to look at the financing, our estimate for Trawsfynydd would be of the order of £250 million, that kind of number, to get to a final investment decision. Of course, there is the next bit, which is the money required to build the plant, which is in orders of magnitude more than that. There is a greater opportunity to bring in private sector at that point.

**Simon Bowen:** Can I just make one further point? We do get fixated on the level of investment required upfront in nuclear. That always worries me because these are assets that run for 60 years. When you amortise that initial cost over 60 years, this is a very cost-effective, low-carbon power. We have to think about the overall cost through life, because those are the numbers we need to look at to decide whether nuclear is or is not economic, and then we have to price in energy security. That is why, for someone like me, the case for nuclear is very straightforward.

Q233 **Chair:** My colleague Simon Baynes, just raised an interesting point there about, how does the French Government treat these investments. You have made the point, Mr Bowen, that EDF is the only nuclear developer we have. That is now French state owned. Are we not in danger of outsourcing a big chunk of our energy security strategy to the French Government here?

**Simon Bowen:** Of course, EDF is controlled by the French Government. It is a statement of fact. That is why we have to set up GBN. We have to develop sovereign capability within the UK to own our own energy security. We have a great partnership with EDF, and they have superb capability and have been great supporters of ours to ensure we can grow our nuclear industry. They have been an absolute cornerstone, and without them we would not be where we are today, but with our level of ambition, we simply have to develop the UK capability. That is why Government leadership and Government ownership of GBN is so crucially important.

Q234 **Chair:** Can I press you on that? I agree EDF are a very impressive company, but certainly when it comes to gigawatt scale developments, there is no UK sovereign capability to develop. It is either French or US through Westinghouse, is not it?

**Simon Bowen:** To a degree, but do not discount Sizewell B, which has a very interesting technology. If your pure aim is to go for energy security, then Sizewell B is a pressurised water reactor that has operated for

decades and is a very good design. I would put that into the mix when you are considering what gigawatt technologies to look at. You would also have to consider the Koreans as well. What that does not mean, though, is that you end up with a US developer or a Korean developer. They have to be in partnership with a UK company. The next journey we are on in the development of nuclear is that EDF will be part of a family of nuclear operators, but they will be seen to be British.

Q235 **Chair:** Sorry to labour this point, but that does not give you a fleet effect, does it?

**Simon Bowen:** It does not, you are absolutely right, but if you choose a different design of reactor in any site, then you are in first of a kind costs with all the regulatory costs that sit with it. It is worth taking a step back and looking at the benefits of doing that to see whether the costs genuinely are that much higher or whether the fleet effect on the EPR does kick in and whether you do get the cost reductions that we all believe are possible and think we will see in Sizewell C.

We need to work out whether or not the price of energy resilience and having two designs is what we want. Let us not forget what has happened in France, where a number of reactors of a similar design have been off together, and we do not have anywhere near that capacity. Again, that sits in the policy space, but it is an important debate.

Q236 **Beth Winter:** Mr Bowen, you referenced during your evidence that the state would invest millions of pounds upfront and that would then encourage private investment, but a lot of the evidence we have received in other examples indicates the private sector has been reluctant to invest. How can you be so confident that is going to happen?

Simon Bowen: I do not know what evidence or opinions you have received. My opinion is if you look at the substantial amounts of money that are being invested in the development of the Rolls-Royce technology, as an example, or some of the foreign technologies, a lot of that is private sector finance, so people are prepared to take risk. What I am suggesting is that to take those technologies to the next stage, the level of risk attached to that stage of the development requires both Government funding and private sector finance. At a point where the private sector believes it can quantify and take the risk, then the private sector will invest. Then it becomes a simple debate about, is the cost of that investment worthwhile, because the higher the risk, the more it is going to cost? Alan and I are both familiar with a number of companies that come in and say, "We do not actually need any investment. We have all the private investment we need." It is not just about that. There is private investment out there. The critical question is, who is prepared to take the risk?

Q237 **Beth Winter:** Are there named people who are willing to take the risk?

**Simon Bowen:** For a price, yes, but not all of the risk, that is for sure. The question is whether we are prepared to pay that price. That is the

reason we suggest in the GBN report there needs to be co-investment between Government and private. That is exactly the way Sizewell will work.

Q238 **Ruth Jones:** We are coming to the end of our investigation into nuclear energy now, and throughout we have heard very clearly there are issues with availability of skilled workers and even materials. Is that your experience? Do you find that is an issue in your areas? Is it possible to build more than one gigawatt scale plant at the same time rather than doing the series? Can you run them in parallel? Is that possible at this time?

**Simon Bowen:** Skills are a huge issue, of course. Anybody who says anything other than that is deluded. It is a very substantial issue. Part of the solution is programme. The reason people are not investing is because they cannot see certainty. I used to work for Babcock, and I know exactly how that works. If you can see certainty through a contract and you can see certainty through an industry, then we will put in all the investment required to provide the resources we need. At the moment, all we see is Sizewell C, and the industry does not see anything past that. The first thing is the announcement of a nuclear programme and certainty. At that point, the private sector will start to invest.

The second point is, as an industry—because this is not just Government, this is industry as well—we are not minded to collaborate and work together. There is active work going on between Hinkley and Sizewell to make sure we utilise all the resources that can be shared that have worked on the development of Hinkley, and then move them into Sizewell to support Sizewell. Then, crucially, those resources can be rolled on to continue to support the other nuclear programme. Indeed, EDF have set up their technology arm to allow other people to access that.

To your question about, can you run two together? I do not think we can run them absolutely in parallel for a number of years until we have developed the skills and supply chain we need through the programme certainty we want to create. You can, though, match them so the resource rolls from one to another. I do believe you can do that, and that is a sensible way to do it. That is why we are so passionate about programme. Do I think you can run an SMR programme and a gigawatt alongside each other? Yes, I do, because they are different methods of manufacture, and the modular manufacturing that is being talked about will require a different skillset and can access a different part of the technical population. I absolutely believe that is possible.

Q239 **Ruth Jones:** Mr Raymant, from your perspective, what would you like the Welsh Government and the UK Government to be doing to work on this skill shortage issue?

**Alan Raymant:** First and foremost, what we need is a project to be established fully so that all the stakeholders involved in it can understand what is required, see the pathway to delivering that, and then, as Simon

said, the investment will come in and we will start to build the skills capability. That happened at Horizon. Unfortunately, there was not a project for them to stay so people have gone elsewhere, but it is that kind of certainty that is needed. Recognising the length of time it takes to get people through apprenticeships and all the skills required to ultimately build and operate a power plant, you are talking years, and so that programme needs to be started relatively early. The key message is we need certainty on individual projects, and then we can start to have those conversations with the local stakeholders.

**Simon Bowen:** We do have time. That is the point. These programmes are long programmes. We do have time to develop them.

Q240 **Geraint Davies:** Mr Bowen, can I ask about interest rate risk? You mentioned, obviously, the seedcorn funding is public sector to ease the risk and provide certainty, and then the private sector comes in. As the Fed pushes up interest rates, global interest rates go up, and there is more and more uncertainty over that, does that differential between the public sector and private sector costs grow? How are rising interest rates going to affect this project, whether it goes ahead, and the cost of it to the public purse?

**Simon Bowen:** This is not my area of expertise. I will give you a view, but it is not a terribly informed view. The reason the RAB model works is because it is lower cost money. Government can borrow at a much lower interest rate than the private sector can. It comes back to my point about interest rates. Of course, there is going to be an incremental increase on shareholder expectation and what they expect in terms of a return, so private sector finance is likely to be more expensive. Therefore, you have to think very carefully about the level of private sector finance that you bring in early because it is expensive money. If people are going to take risk, they will want a return and, because the interest rates are higher, that return is likely to be larger.

What it comes down to is the balance between private sector and public sector investment in the early stage. It is likely that, if you do it purely on the total cost of the project, you would want more public sector investment upfront to keep the cost down. At a point where the private sector can take the risk—once construction is proven and has been done a couple of times—then those economics work at the backend.

Q241 **Geraint Davies:** Simply put, then, would it not be better if the public sector just funded the whole lot, charged the same price in the future as the private sector would, and the differential in the cost of capital would be recovered by the public sector to reduce taxes and spend on public services? Why are we using the private sector?

**Simon Bowen:** It depends on what the Government strategy is as to whether or not you want your electricity generation to be in public hands or private hands. At the end of the day, that is a policy choice.

Q242 **Chair:** We are coming to the end of the session. Mr Bowen, could I ask you about the economic turbulence in the markets back in the autumn? Virginia asked the crucial question earlier on about the delay and this sense of momentum faltering a bit. How significant was that moment in this?

**Simon Bowen:** The economic turbulence is not the dominant risk at the moment for us. The dominant risk is the international market. No decision is a decision in itself. The international market is moving on. If we are interested in bringing international technologies to the UK, they have multiple opportunities. There is one SMR vendor currently pursuing a 79-reactor project in Poland. There are multiple projects across Europe, and there are multiple projects in the US. Unless we get on with it, there will not be any other external technologies to bring in, and Rolls-Royce will not have a market to export to because all of that will be filled. That is the big concern.

Q243 **Chair:** What I am hearing is it is a question of political leadership. One of the things that has changed in the last year is there was a Prime Minister in place—Boris Johnson, who appointed you—who was a believer. He provided that top-down leadership on this issue which meant that the wheels within other parts of Government turned. Rishi Sunak and Jeremy Hunt are not in that space. They are warmly agnostic and are, therefore, taking their time to work through every aspect of these decisions. That is the problem we have, is it not?

The political timetable does not help here because we are going to be running into a general election. Is the fear that the best we can hope for is the Government to take a decision in principle on new programmes for the future, but leave it to the next Government after the election to sort out the financing and the headaches?

**Simon Bowen:** Of course, that turbulence is causing an issue and—back to your original question about the economic turbulence that happened in the autumn—the new team are having to deal with that, so they are dealing with a completely different situation. Yes, I said there was a lack of an overarching strategy. I think that is about to be filled and about to be announced.

It would be disastrous if we waited another two years. One, the whole of the industry will lose faith. The people I talk to in vendors and different countries are looking in and saying, "When are you people going to make a decision? You have almost made a decision on nuclear for the last 20 years, and you're about to repeat the same mistake." So, for me, absolutely not. We have to have the courage to take an intergenerational view because that is what this infrastructure requires on energy resilience, low carbon and net zero. If we are saying we can wait another two years for that, to be honest, I think that is madness.

Q244 **Virginia Crosbie:** There has been a transformational change in the sector, a real intervention in the nuclear sector, and that is the Inflation

Reduction Act in the US. We do not have that here. We have green taxonomy in places like Europe and Canada. What does this mean for us? Are you worried?

**Simon Bowen:** Yes, absolutely. Green taxonomy for nuclear is very, very important, and we are operating in a global market for skills. I heard yesterday that a lot of wind turbine manufacturing is moving to the States because it is a really attractive place to do business now. We have to wake up and realise that that is the case, and we will not have an industry unless we address that head-on, so you are absolutely right.

**Chair:** Simon Bowen and Alan Raymant, thank you very much for your time this morning. It has been a very useful and interesting session. We are going to move on to our second panel now, which is the ministerial panel. Thank you.