

Energy Security and Net Zero Committee

Oral evidence: [Work of the Department for Energy Security and Net Zero](#), HC 396

Wednesday 20 November 2024

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Members present: Bill Esterson (Chair); Ms Polly Billington; Torcuil Crichton; Harriet Cross; Wera Hobhouse; Josh MacAlister; Ms Julie Minns; Luke Murphy; Bradley Thomas; Claire Young.

Questions 1 - 89

Witnesses

[I](#): Professor Juergen Maier CBE, Chair, Great British Energy; Emma Floyd, Director, Department for Energy Security and Net Zero.

[II](#): Simon Bowen, Chair, Great British Nuclear.

Examination of witnesses

Witnesses: Professor Juergen Maier and Emma Floyd.

Q1 Chair: Welcome to the Energy Security and Net Zero Committee, where we are going to be hearing from witnesses from GB Energy and GB Nuclear. Can I welcome our first two witnesses, Professor Juergen Maier and Emma Floyd? Perhaps, Juergen, you could briefly introduce yourself and then, Emma, I will ask you to do the same.

Professor Maier: Yes, certainly. I am Juergen Maier, chair of Great British Energy—start-up chair indeed. I am sure we will talk a little about my experience for this role, but predominantly I have had a very long 33-year career with Siemens, the last six years of which was as chief executive in the UK, also responsible for deploying quite a lot of green energy in the UK.

Emma Floyd: Hello, everyone. I am Emma Floyd, a director in DESNZ, responsible for the programme to set up Great British Energy. I work closely with Juergen.

Chair: Thank you both very much indeed for being here. Our first question comes from Josh MacAlister.

Q2 Josh MacAlister: Thank you very much, and welcome to the Committee. The first question is about an issue that was raised during the Bill Committee for the GBE Bill, and was related to the operational independence of Great British Energy. There was a lot of reassurance provided during that process that GBE would be distinct from other initiatives that the UK Government had tried before, in that it would be very operationally independent from Ministers and from the Department. I wanted to get a sense of where that was up to. You are in the process of establishing, setting up and hiring, and I can imagine there might well be some frustrations with Cabinet Office controls or various other bits of machinery of government. Where is the operational independence as of today? What is your judgment on how operationally independent GBE is in its first few weeks and months?

Professor Maier: Thank you very much for the question. The first thing to say is we are not yet formally set up as a strategic independent entity. Obviously, that cannot happen until the Bill has gone through its full course in Parliament. At the moment, we are in the preparation phase for that to happen, but the good news is we are living it how we want it to be. We want there to be a very clear statement of strategic priorities, and we have been working on honing that and making sure we are comfortable with it. That, ultimately, is the agreement that we have with the shareholder—the shareholder being Secretary of State. Once we are totally clear on that, we are absolutely clear that we are setting this up as a state-owned, single-shareholder, but arm's length and independently run body.



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I am in the process of bringing together the board, and we hope to be able to make an announcement on some of the first board appointments quite soon. It will be that board, with myself as chair, when we get round to having a chief executive, that will ultimately make the key decisions on how we invest and deploy that strategy to meet the strategic priorities of the shareholder.

Q3 Josh MacAlister: On the appointment of the chief executive and the senior leadership team by you and the board, are you clear yet on who is making that call and what that says about the operational independence of the company?

Professor Maier: Yes; the process for it is very clear. At the moment, it is only me, so I am leaning on some HR support from the Department, but I will soon build some of that internally within Great British Energy. We will run fully open and transparent processes for these roles, and then ultimately make a recommendation. The way that I would view it is that the shareholder does not have a right of choice as such but does have a right of veto. There might be some political reason that the person is not suitable, but the decision to find the candidates will be made by me, the chief executive, the board and the nominations committee, ultimately.

Q4 Chair: Emma, is there anything you want to add to what Juergen has been saying?

Emma Floyd: I completely agree that that is absolutely the intention. We are really committed to this being an operationally independent company and setting it up in exactly that way, with Juergen completely leading the search for the CEO in the way that he described. We will have conversations as well with colleagues at the Treasury about how to get the right financial framework in place so that this company can behave in the way we want it to. I noted you talked about Cabinet Office controls, and it will obviously be important to get the right balance between empowering the company to deliver and accountability.

Q5 Ms Billington: The Great British Energy Bill grants the Secretary of State powers to give specific or general directions to GBE, with which the company is then obliged to comply. If we compare similarly state-owned energy companies with GB Energy, they are very clearly operationally independent. How do you reconcile that instruction in the Bill with being operationally independent?

Professor Maier: In terms of the direction for the company, we will absolutely hold on to the statement of strategic priorities, which is ultimately what will drive us. I take the right of the Secretary of State to direct the company as being in emergency-type situations.

Q6 Ms Billington: Can you give me an example of what might be an emergency?

Professor Maier: For example, we are just entering another energy crisis like we did when the Ukraine war started. We suddenly have a huge



hike in energy prices, with totally unaffordable bills, and at that point there might be some interventions that a Great British Energy could make in order to help such a situation.

A situation might arise around a certain piece of energy-critical infrastructure, where the private sector runs one of those into liquidation and you might need to step in as the state to support something like that. Now, Great British Energy might not be the right vehicle to do it, and there are other ways, but in those situations, I imagine the Secretary of State would have the right to intervene and to discuss with the board. Then it will be a dialogue with the board as to what we do in that situation. But I really do see that as an emergency break.

Q7 Ms Billington: GB Nuclear already exists, and the Energy Act 2023 gives the Secretary of State a mechanism by which to direct and guide the strategic direction of GBN owing to its broad and potentially shifting responsibilities over time. They have been set up slightly differently. What might you learn from the way that GB Nuclear has already been set up, and how do you see the operational structure being different for GB Energy, as distinct from GB Nuclear?

Professor Maier: Obviously, you will be talking to the chair of GB Nuclear after me. Simon Bowen and I have already had a number of conversations in terms of sharing notes and learning. It is fabulous to have people who have gone before you and had a go at doing this. GB Nuclear was not the first; there have been other institutions, like the UK Infrastructure Bank, and I have also had conversations to learn from those. The key thing that we have probably learned is that the more independence you can give, the more likely you are to make the right strategic decisions in order to carry out the purpose and the mission of the company, which is to deploy more renewable energy at a faster pace and create value for society through that.

Q8 Luke Murphy: Thanks very much, and welcome to the Committee. Further to Polly's question, you were really clear about specific examples where you think the Secretary of State might intervene, but is that going to be set out in the framework document? In terms of giving reassurance around genuine operational independence, that confidence will be given through the operation over the course of time. But actually having those specific scenarios outlined in the framework document will give a lot of confidence. Is that what you would expect?

Professor Maier: Absolutely. It is important to have all these things written down very clearly. You cannot foresee all scenarios, but we have had some foresight and taken some of the experience from organisations like Great British Nuclear that have gone before us on this journey.

We will have a framework agreement. There will be two key documents: one will be the strategic priorities, and the other will be a framework agreement, which will talk more about how the governance works and what is expected. The onus of governance will be on us as an executive



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and as a board, and so on. Obviously, it is already laid down very clearly that there will be an annual set of accounts filed by the Secretary of State. Things like that will be clearly laid out in that framework agreement.

- Q9 **Torcuil Crichton:** Welcome, Emma. Welcome, Juergen. Ultimately, we are asking, who is the boss? Is it the Secretary of State or is it GB Energy? How comfortable would you be challenging the Secretary of State or the Government on an issue you did not agree on?

Professor Maier: I have been used to being the boss, but sometimes not quite being the boss, for decades. I ran Siemens in the UK and took all the operational and strategic decisions, but understanding that there might be some time when the global board has the right to intervene in emergency situations. That is how I see it.

To answer your specific question on whether I will stand up to the Secretary of State where I believe that an intervention is not aligned with the strategic intent of what we are creating, the answer is absolutely yes.

- Q10 **Chair:** Thank you very much. I will move you on now to the purpose and responsibilities of GB Energy. You will be familiar with something that Dan McGrail said, and a number of other people have made similar comments: "It's really vital that Great British Energy doesn't disrupt the billions of pounds of private investment the Government will need to deliver their clean power ambitions, so the next steps of its development will have to be formed in close partnership with the sector." How will you ensure that GB Energy attracts private investment and de-risks, rather than crowding out private investment?

Professor Maier: I started moving into this role in September, and since then I have had literally hundreds of engagements, largely with private sector investors, developers and energy companies. In all those conversations, I think I have managed to reassure the private sector that it is not our intent to go out and compete with them, certainly not where we have established renewable technologies.

The £8.3 billion does not actually go that far in terms of buying renewable energy generation assets, so with that money we will buy minority stakes in areas where we can give confidence to the private sector to make their investment. That is likely to be in the newer technology areas, which are pretty well-defined, such as floating offshore wind, large-scale storage, which could be batteries or hydrogen, and possibly also tidal arrays and similar technologies. I think the private sector welcomes our intervention to give them confidence to invest behind us. So we are very confident that what Great British Energy and the National Wealth Fund are doing—I am sure you will ask me a few questions on that—will continue to create a lot more private sector investment and capacity in the market.

- Q11 **Chair:** I am glad you mentioned the National Wealth Fund, and you had



already mentioned the UK Infrastructure Bank. How will you make sure that GB Energy works effectively alongside those organisations and clearly defines its own areas of responsibility?

Professor Maier: First, the very good news is that we have the UK Infrastructure Bank and the National Wealth Fund, because we all know it takes some time to set up an institution like that. By the time Great British Energy has an investment committee on board and so on, it is going to be well into next year before we can make any investments. You will be aware that the initial funding is £125 million, so any early interventions we make will be relatively modest. Therefore, in that first period we will be working in lockstep with the National Wealth Fund—we have had very good conversations with it—and it will make those strategic early investments on our behalf. That is where we will start.

Now, ultimately, we have to work out where we go. We absolutely are clear that we are not going to confuse the market. We are going to make sure that the market is clear as to how public money flows most effectively to supporting it. But, to give a sort of relatively simple analogy of the way I am thinking at the moment, with the space we occupy, ultimately, in 10 years' time we want to have created a national champion—an energy company. Any strategic investments we make have to be in line with us wanting to build that company. The investments also have to be in line with the strategic plan that we are setting out for clean power 2030 and beyond.

So rather than us being a large-scale investor in a more free market-type set-up, we are saying, "This is what we want to create. There's going to be some gaps in investment. We need more large-scale storage. We need a little more offshore wind here. We need some carbon capture over here." We are then the people who will say, "Right, how do we crowd in and create the strategic investments which are going to build the strategic national framework for the energy system that we require?"

Q12 **Chair:** You have mentioned a lot of things there, including the 2030 date, which NESO has said is ambitious and challenging but possible, and I know that as well. You also mentioned the £125 million, which is—correct me if I am wrong—over the first two years. Is that fast enough progress for GB Energy's role in achieving 2030?

Professor Maier: Given that we have the National Wealth Fund sitting alongside us, and that we are able to work with them to deploy some of the strategic investments that we want to make, I am confident that we can make it work. By the time we know which larger strategic investments we want to make to build our energy company, we will be clearer, through the multi-year spending review, what will be available at what time through the next term of the Parliament. But, of course, we know the full quantum, which is £8.3 billion.

Chair: I am sure the rest of the Committee will probe some of these points a bit further.



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- Q13 **Wera Hobhouse:** There is the National Wealth Fund, the UK Infrastructure Bank and the British Business Bank. As I understand it—this sounds as if I am an expert on the banking sector; I am not—part of the problem is that there are not the right financial products around to bring private investment in. Would GB Energy talk to the Treasury or have conversations about how to design these financial products that will then be attractive to investors in green new technologies, which are currently not coming forward as quickly as they should?

Professor Maier: Personally, I think the UK Infrastructure Bank, now the National Wealth Fund, has done a good job at creating some of those more innovative products, whether that is through supply chain financing or taking a little more risk on debt finance. I am getting feedback from the market that there has been a significant move in the right direction on that. Now, as Great British Energy, we are not going to be a bank with all sorts of interesting and complicated financial lending products; that will continue to be the responsibility of the National Wealth Fund. We are going to be more interested in taking equity stakes in key energy projects going forward.

But, if I may say one other thing, my observation, having been at the other end of this for many years as an investor in the UK, is that very often it is not the flow of investment that is the issue; it actually tends to be much more about policy stability and the demand we are able to create for particular technologies. The reason why Siemens crowded in behind the offshore wind revolution is that we created the contracts for difference, when your party was in coalition in the Government, as a matter of fact. This is also the beauty of a Great British Energy: we are a national champion. We have some capital to deploy and we are able to have some influence—we are not the policymakers, but we are able to have some influence—on the policy that will be set and to help ensure that that policy stays stable, so that investors have the confidence to invest in their technologies going forward.

- Q14 **Harriet Cross:** Thank you for coming to speak to us today. Going back slightly to the companies that you envisage investment going into, will this be new or existing, UK-based or international companies? Are you going to base it on things like business plans, the number of jobs that will be created in the UK, rates of return or the risk level? “All the above” is not a particularly helpful answer, so in terms your matrix of how these things will be decided, how do you see those things sitting?

Professor Maier: All the above. *[Laughter.]* But to be less flippant, as an investment committee we will have very clear investment criteria, which we have not yet written down. But, honestly, you have nailed them—it is exactly those. Obviously, we look to make a return, and we are setting this up as a commercially savvy, innovative company that will look for its revenue streams. That said, we are going to be hugely socially responsible in what we do. I come with pretty good experience on that, having been lucky to have worked for a company that took both those things very seriously throughout its history. Therefore, we will of course



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look at the jobs and the local value that we will be able to create. We will also have as a criteria being able to take communities with us on this journey, because we know that communities ultimately need to see the benefit, such that they will also be supportive of some of the more complex and difficult planning decisions that need to be made in creating this new energy system.

Chair: I will move on to Polly Billington, who will ask you about cost of investments.

Ms Billington: I actually wanted to do a follow-up question.

Chair: You have the opportunity to do both.

Q15 **Ms Billington:** I can, indeed. What is interesting is that when we looked at this in comparison to other state-owned energy companies in Europe, a lot of them have been making a loss. What do you think will be different about GB Energy? In particular, how do you identify what risks there might be around the way that you establish a portfolio?

Professor Maier: We need to do a little more work on this, but Emma's team has kindly done a little bit of a study for me on some of these other companies—the Vattenfalls and the Ørsted. Those are particularly the models we are interested in. An EDF model is probably less what we are looking for here the United Kingdom. It is more the Ørsted/Vattenfall; it is the national champion of the new technology areas. By the way, it is not going to be an Ørsted, because its assets are largely in fixed offshore wind technology. Why would we want to move into that sector when it is already pretty well occupied? We are more likely to occupy a space in newer technologies like floating offshore wind. I have already mentioned tidal, large-scale storage and so on, but it is that sort of model that we will approach.

We are going to be unapologetically long term in how we set this up, understanding that some of these technologies still need a little prime-pumping, but we are confident that we can take the technologies to scale and make a commercial return.

I have been here once before. I was there right at the beginning of the offshore wind revolution, when everybody told us, "You will never get offshore wind to the sorts of cost levels that we need." I sat in front of many people like you, having these discussions. We even surprised ourselves with the speed we were able to do it at and then with the costs we got. There was then a little wobble in terms of supply chain costs rising again, but if you look at it overall, what has been achieved has been really quite tremendous.

None of these technologies that we are looking forward to now are untested. A lot of people are saying, "But these are still very early stage." Well, carbon capture and hydrogen have been around for a very long time; they just have not been scaled to the level we need, and we have



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not yet managed to find the exact price points at which to make a proper return on this. But, as in offshore wind, I am pretty confident we will be able to do this in some of these new technology areas.

Q16 Chair: You are confident that a range of these technologies are capable of delivering the same kind of economies of scale that we now have with wind.

Professor Maier: Absolutely.

Q17 Ms Billington: Do you have a timeline for when GB Energy might be profitable?

Professor Maier: I have been set a target, which is within this parliamentary term.

Ms Billington: Okay, that is a start.

Professor Maier: We will have to be innovative on this, because it will not just be a return from those investments; there will be other support lines that we will develop within Great British Energy. One area we are very keen to work hard on is how to accelerate development, particularly through the planning and consenting scheme, especially where offshore wind farms come onshore, where you need the onshore facilities, to do all your staging, site access work, environmental consenting and so on. What can we do in this space to help developers get ahead of the game and provide a service in that space? For that service, you can either charge a fee or take an equity space. I am not suggesting that I have yet decided that is definitely going to be one part of the business case; I am just giving you an idea of the fact that there are things we can do to help generate revenue streams and achieve that objective of being profitable within the first five years.

Q18 Ms Billington: To a lay person, the two objectives that the Government have for GB Energy—investing to see a return for taxpayers, but also investing in projects which are deemed too risky for the private sector—feel a little contradictory. How are you going to resolve that?

Professor Maier: It is like any business decision, which is maybe one reason why Emma and the Secretary of State asked me to do this role: I have come from a background of taking pretty risky technologies to market with very deep pockets and ultimately needing to make a return. By the way, I want to reassure you that I have also been involved in bringing technology to market that has failed, and I know that the right answer at that point is to fail fast. I genuinely do not believe that the technologies that we are currently talking about are going to fail. We have enough engineering prowess and private investors already crowding into these spaces to know that these are going to scale and be workable. But some completely new technologies will emerge over time, and Great British Energy's role is to be there from the beginning, help pump-prime and then help to define and say, "Look, we might fail fast on one or two



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of those.” So we will have a proper entrepreneurial mindset to try new and accept that we will not always succeed.

Emma Floyd: If I might add, it is about the portfolio—the range of things Great British Energy will need in order to meet those two objectives.

Q19 **Chair:** Some people might say it sounds like a private equity-type of arrangement. Is that right?

Professor Maier: No, I would not put it in a private equity category. It is with deep expertise and understanding of the energy market, systems and technologies. I am not sitting here pretending that I will understand all these technologies to the nth degree. I am an engineer, and I have led an engineering company, but my role is to build an organisation with the expertise and capability to make the right commercial and technically led calls.

Q20 **Ms Billington:** You mentioned influencing policy. Before I came to this place, I had worked on this for quite a long time, and I found Whitehall quite resistant to hearing advice from the private sector or from people who knew that some of the biggest barriers to ensuring capital flows into clean energy were regulatory. How do you see that mechanism working between GB Energy and, dare I say it, Emma sitting with two hats on—both inside the Department and as the director of GB Energy—to make sure that information flows so that we see policy change as an outcome of GB Energy’s experience in investment?

Professor Maier: I will definitely let Emma comment on this one. You are right: that is the partnership we are forming. But you have described one of the key advantages that a state-owned but independently run operation can bring. One reason why other countries have created their Vattenfalls, Ørsted or EDFs is that, without that outsider/insider knowledge, it is quite hard to make the right policy calls. We will be arm’s length, but we will also be a very trusted organisation in terms of giving market and policy advice on what is required for us to do our job but also for the private market and the investors to do theirs. We occupy quite a unique space with our experience and being that trusted adviser.

It is a space I have also occupied in my private sector role for quite some time. From the true private sector—given we are state-owned, and that is slightly different—how do you work to influence policy ultimately, not for your company’s good but for the market and for the greater good? That is probably why Emma was quite keen that I come on board and help set this up.

You might be aware of the Made Smarter review that I led, which has become quite an embedded piece of policy. It was started in the last Government and has now been adopted by this Government, which in itself is quite good. It is genuinely a piece of policy which is all about helping the adoption of digital technologies, which, by the way, also



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applies to the green economy. Having done that for the whole of the UK's manufacturing industry, I hope I bring a little credibility.

Q21 **Ms Billington:** Emma will be the one sitting in the Department.

Professor Maier: Absolutely.

Ms Billington: From my experience before coming to this place, that is where some of the blockages are.

Emma Floyd: As Juergen said, having a state-owned energy company trying to do this stuff in the same way that elements of the private sector are is a really good opportunity. We have good dialogue with the private sector feeding back, but of course it has its commercial interests. So a company that is set up for the public good has another element and can be clear with us about their experience as a trusted partner and can feed that back in.

Now, it does take time, and it can be challenging to change some of those things, but as Great British Energy is able to put that back in, with Chris Stark's Mission Control, there will be a strong emphasis in the Department on understanding what the blockages are and how we can practically address those. That is partly why Mission Control was created, and I know that Juergen has seen Chris a lot recently. There is a really good opportunity here for us, with Juergen and Great British Energy coming together with Chris and Mission Control, to really go after some of those blockages that you described.

Chair: That was very helpful, thank you. We will now move on to the next set of questions, and Luke Murphy will ask you about technology and priorities.

Q22 **Luke Murphy:** I will do that in one second, but my first question, which is relevant to the technological question, and which has been a theme throughout, is about the overriding purpose of GB Energy. You are very clear you want GB Energy to be a national champion within about 10 years, and in your answer to Harriet you alluded to some key things set out in the founding statement: the desire for it to drive clean energy deployment, boost energy independence, create jobs and ensure that taxpayers, bill payers and communities reap the benefits. But at different points, those things will come into tension. There are lots of different opinions about what GB Energy can and should do: some think it should be mature technology, some think emerging technology, some think emerging technology and investing in the grid. But one thing it absolutely has to do is have real clarity of purpose. So my question, because some of those things will come into conflict at different points, is what is the overriding purpose that you see for GB Energy? If you are bringing revenues and profit in, you can either decide to lower bill payers' bills, or you can reinvest to further advance the journey towards the clean energy target. When push comes to shove, what do you see as the overriding mission of GB Energy?



Professor Maier: That is the skill of a good chief executive working with the board and the team that we assemble: to first make sure that the purpose is crystal clear and to manage the conflicts that sometimes exist, to make it fit for all stakeholders.

It is hard for me to prioritise between the purposes you laid out. I guess the headline one is that we are accelerating the deployment of clean energy, and the fact that we are going for clean energy 2030 really creates a north star for that. I think that is the overriding purpose. But if we were to do that and not, at the same time, create jobs and social value, bring communities with us and create lots of opportunities in supply chains, we would not be fulfilling the strategic priorities that the company has been set.

So clean energy 2030 is the overriding purpose that we absolutely have to deliver, and that is why we envisage the organisation to be set up with that purpose. But then we will have those pillars in the organisation, which will be, first, the strategic investment piece I have described; secondly, the faster deployment and development—the accelerating—of what I talked about in terms of consenting planning; thirdly, local power and community energy, which is very much about community engagement and benefits; and fourthly, supply chains and the local jobs and local value that we create. I see there being executives running each of those pillars in the organisation, and it all has to come together with the chief executive in terms of the overriding purpose.

Q23 **Luke Murphy:** You have covered the technological priorities a bit, but on the timelines, when do you think it is reasonable for us to expect details of the technological priorities and the investment pipeline that is going to be adopted by GB Energy to be published, including a statement of strategic priorities by the Secretary of State?

Professor Maier: We have said spring next year.

Emma Floyd: It will be next year that we publish the statement of strategic priorities. At the moment, we are doing quite a lot of consultation with the sector—we are having lots of conversations with the private sector, community energy groups and so on—to help us shape it in the most effective way and give the company that clear steer. We will be looking to publish it at some point next year.

Q24 **Luke Murphy:** What balance are you expecting between short-term and long-term investments and between mature and emerging tech?

Emma also mentioned the portfolio approach. As has been alluded to, we would want to see GB Energy making a profit on every investment but, Juergen, you rightly—from my perspective anyway—referred to the fact that some investments fail. If you are going to prosecute a proper working industrial strategy, Governments have to be willing to fail and then move on, as private business does.



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Professor Maier: Emma, do you want to take the portfolio one, and I will take the long and the short term?

Emma Floyd: Yes, it has to be a portfolio. I completely agree with you that this is not going to be successful if we take the view that nothing could fail, because in this space some things will; if they do not, we are not taking enough risk or value-adding enough. It is not the case that we are saying that every single thing that GBE does has to return a profit. That has to be at the portfolio level.

Professor Maier: In terms of the long and short term, I have said that we are unapologetically long term. I like that term because I believe in long-termism and in policy stability, and in the end that is also what helps crowd the private sector funding in. But I am also realistic that we are going to have to score up a few quick wins, which are therefore more likely to be in the mature technologies and the community energy space. On community energy, some sort of solar—maybe solar on public sector buildings and public sector land—seems to be a bit of low-hanging fruit in terms of early wins and getting a few megawatts, and maybe even gigawatts on the grid, but also helping to see a community benefit.

Q25 **Luke Murphy:** Is there a tension between investing in mature tech in order to build a revenue base to then invest more in emerging tech, which some have suggested GB Energy might want to do, and wanting only to play a role that is supportive of the private sector and crowding in private investment? Will you ever make investments solely to make a profit to generate revenue to invest elsewhere, or do you not see that as the role of GB Energy?

Professor Maier: This comes back to Harriet's earlier question, and it will be an important criteria of the investment committee. We will be very cautious in terms of taking investment decisions purely for short-term commercial gain that ultimately crowd out private sector investment. Whilst the temptation might be there, that would be a wrong decision. The more likely lever for us to make those sorts of investments is that, as a state-owned, independent entity, we believe that we can help create some community benefit from doing these sorts of schemes, which, again, a state-owned entity is more likely to stand behind.

Chair: Thanks for clarifying that point; that is very helpful.

Q26 **Ms Minns:** Building on Luke's point about your role in encouraging the nascent technologies, you mentioned solar, but that technology is arguably already mature in the market. Do you see a role for GB Energy in picking up those technologies that have not yet got to market scale, such as CHPs, community energy and micro hydro projects, and if so, how will you go about doing that?

Professor Maier: In the community energy space, we would like to take any scheme that is already pretty mature and where we can add a service that accelerates and replicates faster. The thing in my mind is



almost having a “community energy in a box” approach. There are many community energy schemes already out there—some delivered very well—but we do not seem to have the memory in terms of how we take the lessons from that, put them in a box and then roll that out 10 times in different places. In other words, “Here is the handbook of how you acquire the land, get the planning, do the consent, do the engineering, do the health and safety, and all the other things.” I am envisaging that Great British Energy could offer a service in that space that will help scale a project. So it is less about the actual technologies, and more about the methodology and project management to be able to scale those across the country.

Certainly, there is solar, and there are a few local hydro schemes around the country that have been quite successful. On CHPs, we are not quite sure yet. Does that fit within community energy or more into an area of heat networks, which is currently sat somewhere in DESNZ? That is a discussion we still need to iron out.

Chair: We are going to move on to Bradley Thomas now and skills and jobs.

Q27 Bradley Thomas: Splitting the skills and jobs piece into two sections, GB Energy as a company will clearly need to acquire new talent to support its objectives and will need to develop that talent in-house. How are you going to do that, and what is the plan that sits behind that?

Secondly, thinking more broadly about the benefits to the wider economy, how will GB Energy ensure that it supports job creation in all the regions, and particularly net job creation in regions transitioning away from fossil fuels, such as Scotland, thinking about North sea oil as an example?

Professor Maier: Those are two great questions. On the first, all I can say is that the encouragement and support that we are getting from the private sector in setting this up are absolutely huge. I have private sector companies coming to me and saying, “When you have identified your workforce plan, we can help get you going by seconding people in to help you if you need them.” Now, we are obviously not going to staff everything with secondments, although we will do some of that, and some of it in partnership. But that gives me confidence that we will be able to attract the right skills into the company. We are obviously going to take a lot of those skills from the private sector, but the quid pro quo here is that we are also going to throw a lot of value back into the private sector.

On your first question, you know we will be HQ’d in Aberdeen. There is a big opportunity to take a lot of people from the oil and gas sector; as a matter of fact, that is already the trend. When I was up in Aberdeen a few weeks ago, I was walking around some of the renewable energy technology centres, and I asked 10 people, “What did you do before you worked here?” and they said, “Oh, I worked in oil and gas.” It is not like



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we are beginning this; this is happening, it is real, and we just want to accelerate and do more of it. I think that will be where a lot of the workforce will come from in Aberdeen.

But you are also right with your second question, in that the real prize here is in the supply chain and in the broader energy companies that you are helping accelerate their technologies. That is hugely exciting for me. We have about 200,000 people in the oil and gas sector across the country, but already today we have around 600,000 jobs in the broad clean energy sector—I know that that is not all energy generation. There are 30,000 people in the offshore wind sector, and we are pretty sure we can get that to 100,000 within the next five to 10 years. So the numbers more than marry up, and it is now a question of getting the timing right, with the right skills in the right places, and clarifying exactly what sort of skills are required.

But one thing we have been lacking as a nation is this overall strategic plan, which we are now going to get, that ultimately drives which technology areas we have, where and in which clusters. Now you are giving much more of a clue to your local authorities and your local colleges about what they need to do to strategically deliver the skills you need.

I will just give you another anecdote. When we, as Siemens, built our offshore blade factory in Hull, we were 10 years ahead of the game. But guess what? The day the factory opened, there were no colleges readily providing us with the skills that were needed. We were having to set up the training facilities, and we were flying people to Denmark to be trained because the training was not available in Hull. That is what we have to change. We have to say, "Look, we have a strategy here. We know what we are going to create, so the skills system we are going to create is now blindingly obvious." Great British Energy itself is not going to be doing that, but we can be part of creating the master plan.

Q28 Bradley Thomas: Do you have a figure for how many jobs you expect to be created and hosted at the Aberdeen HQ? Secondly, on the point about regional job creation and regional growth, you touched on local authorities and engaging with devolved Administrations, and you could probably include LEAs as well. To what extent do you see GB Energy actively pursuing that, as an engagement department with the regions? How do you see that being structured, and that alignment with the overall industrial strategy that the Government are coming up with to cover the whole UK?

Professor Maier: Gosh, you've asked about five questions in that one, but they are all great ones.

First, in terms of how many jobs there will be in Aberdeen, because we need to start with the strategy, which we have not got, we have not yet completed what we think the workforce plan is going to be. We know what the titles and headings are going to be and, indeed, we are starting



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to recruit into some those, but we do not have the full workforce plan. If you want me to put an estimate on it, within this first term, which we are calling this first five years, I think we will have 200 to 300 jobs in the offices in Aberdeen. Let us see what happens beyond that, but that is where we are currently.

In terms of the engagement with industrial strategy, there are lots of conversations going on with Minister Sarah Jones, and I am certainly committed to making sure that we line up the whole supply chain piece. It is actually DESNZ, Great British Energy, the Department for Business and Trade and DSIT. We are going to create quite a lot of co-ordination to make sure that all that works together.

On your final question, about local authorities and engaging, one of the roles we have already created is a head of business development and partnerships. Under that, we expect to have engagement with local authorities, which could be around the skills piece. Also very much in the forefront will be local energy and working with local authorities on that local energy space.

Q29 Claire Young: Just following up on that last point, you talked about engagement with local authorities, and pan-regional partnerships have been doing work in this space on skills. Do you see a role for partnerships like the Western Gateway and the Northern Powerhouse, and if so, how do you plan to engage with them?

Professor Maier: We are not going to be the engine that resolves the skills challenge; we are going to be an energy company in that strategic space that I have designed. Having said that, we have a responsibility to make sure that we get the right skills for our company, and we need to help make sure that other companies get access to those skills. So we will play with all the actors in that space. As previous vice-chair of the Northern Powerhouse Partnership, and with the chair of the Western Gateway being a good friend of mine, I can say that it will be exactly those sorts of bodies that we engage with to help come up with some of these strategies.

I also see a role for Great British Energy to coalesce some of the private sector into this space. Indeed, private sector companies have already come to me to suggest that, when we are clearer on the plan of where we are going to create the carbon capture or hydrogen clusters—of course, it is already pretty clear where they are going to be—a few of us could get together to sponsor local colleges and support them in creating the right sort of skills and training. So we can be a bit of a convener and bring people together, but we cannot answer the entire skills problem.

Q30 Claire Young: It is not just about skills; these bodies have also been doing work on issues related to technologies. You talk about technology clusters, and some of the work on that has involved those partnerships. I am just trying to understand how you relate to them, if at all.



Professor Maier: I am glad you have said that, because we often get a bit focused on what we see as the core skills in terms of renewable energy technology. I do see a massive opportunity, particularly in terms of supply chain, for the UK to jump into some those more innovative spaces, whether that is digital drone technology or robotics and all the areas that serve this market. Quite how we bring all that together and what the strategy is, I have not quite got my head around, to be honest with you. It is a great question, and one we will certainly be giving more thought to.

Chair: Thank you very much. We will move on to our final section of questioning, which is about community benefits and energy bills, and I will ask the Torcuil Crichton to start.

Q31 **Torcuil Crichton:** Juergen, I am very excited to hear you talk about community energy in a box, and the fact that community energy will be one of the four pillars of GB Energy. What level of investment and return do you see in that? My reading is that GB Energy does not quite realise the ambition that some communities have. For example, in my constituency, something like 23 MW is produced by community power companies, with £2.5 million a year going to these communities. If you do the maths, that would be billions—£1.6 billion—across the whole UK.

You also talked about taking the expertise from industry, but in terms of community energy, you might as well take the expertise from where it already exists—from communities—by setting up a community energy unit. That is what I think you should do, and given that you are talking about community energy in a box, that is what I think you are thinking too.

Professor Maier: You make a very good point. When I was talking about taking skills from the private sector, I was obviously a little more in my investment and development box. On the community box, you are right: a lot of the skillset is probably out there in the community. I have visited a number of community energy schemes, and I am quite in awe, seeing what some communities have achieved in creating those local schemes. Let us be clear, there are a lot of hurdles to get over, particularly in terms of the planning and getting the grid connection, and all the things we know to be issues. If we can just bottle some of that knowledge and maybe recruit some of it, as you say, and then put it in a box and scale it, that would be very exciting.

Q32 **Torcuil Crichton:** That is very reassuring to hear. In the same way that the private sector is queuing up to speak to you, see you and lend you their expertise, community energy companies are there ready to go, but they do not have the pump-priming finance. Do you see a role for GB Energy in that?

Professor Maier: Yes, I absolutely do. Again, we will be partnering, but I believe we will be able to be a seed funder in getting some of that up and running, and we would hope that local authorities might take a stake.



And then one of the services we will have out of the box, which has already been developed by many communities, that we will just learn from and pinch and scale, is to allow the community to invest and ultimately benefit as well.

Q33 Torcuil Crichton: So, as you said earlier, you see a return within a parliamentary term for the Government in this investment?

Professor Maier: Again, we are going to have to look very innovatively at how we can do that. Putting our stake into a community energy scheme and looking to make a massive return is going to be unlikely; as a matter of fact, that would probably be irresponsible, because you do not want to make a greater return than anybody in the community—you are all going to make the same return on that particular proposition.

However, there might be other things you can do. You have to get that energy to the consumer. Now, we could potentially work with an energy retail company to see what sort of models we could work with, particularly on flexible energy, to get to their consumers. We are now helping deliver some benefit to the community, but maybe, being part of that and having helped design it, there is a small stake Great British Energy can have in return. Again, I am not suggesting we have fully mapped out the business case for that, but I am just giving an indication that there are business models you can create that allow you to make some return, even out of something like community energy.

Q34 Torcuil Crichton: You are anticipating my final question which is, yes, a return corporately and, yes, a return for communities, but what about the return for consumers? How soon can consumers expect to see a benefit in terms of their bills coming down from having a state-owned energy company?

Professor Maier: Let us stick to community energy, and I have already explained where that is. I am genuinely totally excited about this flexible energy offering, which some energy retail companies are already actively trialling out there. I have an energy provider, I have an app and I am one of the avid daily users saying, "Oh look, I can get some free energy at 3 o'clock this afternoon." I know that a relatively small amount of consumers are playing in this market, but we can make it more available, and there is almost going to be a bit of fun in engaging with it. It is almost like going into a retail store and looking for your bargains, but now you are shopping in that way for your energy. And our local community schemes could help create that.

The bigger question that I think you are asking is, how do we pass on the benefits of this great renewable energy to the consumer? The answer is, what is driving up the cost of energy right now? It is gas. It is not renewable energy which is driving the cost up. What drove the cost up when we had the energy crisis? It was gas. So we all intuitively know that the more renewable energy you put on to the grid, the more you are going to create the opportunity to lower your prices. Lowering the prices



is ultimately a role for more than just Great British Energy. We are part of that, but this is now a whole complexity of the regulator and the energy retailer. I am sure you are aware that there is an ongoing market reform project on that, and we have to try to find a way, through new market reform mechanisms, to pass more of that lower-cost renewable energy through to the consumer, rather than basing it all on the last price in the grid, which is generally gas. What I am really saying is, we are the enabler in terms of being able to do it; how you do it becomes a matter for broader and more complex policy.

Q35 **Chair:** We can all sense your enthusiasm for community energy projects, but how much of our generation capacity do you think they could potentially deliver?

Professor Maier: I think that the NESO report, which was launched a couple of weeks ago, matches what we said in our original priority statement, which is that community energy projects could produce up to 8 GW, which is pretty huge, hence my excitement. Of course, that includes some larger solar deployment, onshore wind and so on, but that is the target that is laid out at the moment.

Q36 **Chair:** That leads, I suppose, to how you define community energy projects, but I will not push you to answer.

Professor Maier: We are calling the 8 GW community energy/local power—it is slightly broader. Is that right?

Emma Floyd: That is correct, yes.

Q37 **Ms Billington:** That leads on to my question about the local power plan, because that is almost half the capital of GB Energy, which is a lot. Is the local power plan there to facilitate the creation of that 8 GW of potential energy? I noticed you were very enthusiastic about flexibility, and we know that local energy is one of the key ways of increasing flexibility and therefore improving grid resilience, reducing the need for greater strengthening of the grid. Where and how do you see that local power plan developing in order to meet that potential target of 8 GW?

Professor Maier: Unlocking all that lies between NESO, which everybody is familiar with, and Chris Stark's clean power 2030 mission. I met Chris Stark earlier today, and his role is to create the action plan that responds to the NESO 2030 power plan in terms of how we make it happen. All of us who read the NESO report were very encouraged by the fact that we can make this happen but, by heck, there is an awful lot that we have to do and have to change. Quite a lot of that is policy change, and quite a bit of that is the area that you are probing—how you create these local energy systems and the grid connections, how you manage that flex and all the rest of it. To help create the policies and unlock that for us is the ambitious task of Mission Control.

Q38 **Ms Billington:** As I understood it, the local power plan is part of GB Energy's role.



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Professor Maier: Yes, sure.

Q39 **Ms Billington:** The money that has been allocated for the local power plan is about half of the capital that has been put aside for GB Energy.

Emma Floyd: Can I just come in on that? Ministers have not formally taken decisions on how money would be split in that way with Juergen, so I do not think that that decision has been taken.

Ms Billington: Okay, sorry—

Professor Maier: There was a number mentioned somewhere, but it has not been formally agreed.

Emma Floyd: No, so there are still conversations to be had about what the right balance is across the priorities.

Q40 **Ms Billington:** How do you imagine spending the money that you will have allocated for the local power plan, in order to achieve the 8 GW as GB Energy?

Professor Maier: First is going out and leveraging what is already there, as we have already discussed. Then, as I explained, our role is to see how can we multiply the project in a box-type of approach. That is how we do it.

The reason why I moved on to how it all works locally is that the whole thing only works if it fits into the national strategy. There is no point putting a load of local power schemes out if the grid does not need the power at that point, or you cannot get the grid connection for it at that point, or it makes no sense to have the grid connection because you do not need the flex of that particular area. That is why there is quite a bit of work for us to do, to work out exactly where, strategically, we need these things to be, to help scale this up in the right strategic areas.

Q41 **Ms Billington:** You did talk, for example, about early quick wins with solar power in order to be able to generate income. I was just trying to tease that out a bit.

Professor Maier: We are going to get Chris Stark's by the end of the year. We are not hanging around.

Chair: We are going to finish with Wera Hobhouse, who is going to ask the last couple of questions.

Q42 **Wera Hobhouse:** I am very much interested in community energy, but a lot of it is really about regulatory changes. You have previously said that you are actually an investment company, and you are not going to get involved in all these regulatory changes, so I am still a little unclear at this point where GB Energy sits in the space.

You are saying, "Okay, we are making investments where we think it is important, but we can also have a role in at least influencing Government



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policy in making regulatory changes—for example, for community energy.” Regulatory changes are at the very heart of community energy, and then people can invest and have the freedom to have the money to invest in these projects. At the end, can you perhaps explain a little more where policy sits, as well as your just being an investment company?

Professor Maier: Policy ultimately sits with the Department for Energy, right?

Wera Hobhouse: I know, but where can you influence policy?

Professor Maier: I will say a couple of things on that. First, you say we are an investment company, but I would always want to add the word “strategic”—we are a strategic investment company, and that is very important to me. We will be making investments where, strategically, they fit within the overall mission of 2030. We will always be going back to the overall strategy and asking, “Does this work?”

In terms of unlocking all that where we need changes, I am not sure it is about lots of changes in regulation. There is some regulation, but some of it is about where you need market reform. In the end, that has to be done by the Department for Energy, so Emma will hopefully add some final words. But the driver for that will be Mission Control. So it will be Chris Stark’s team that ultimately, through the action plan, will be saying, “If we’re going to make this happen, and we absolutely want to make this happen, these are some changes that we need to make in terms of our market reform and regulation,” and we drive them through that way. Now, Chris Stark might use me to say, “Juergen, can I just test this? Is this what you are hearing from the market? Is this your experience?” So I am inputting into that, but it is the Mission Control piece that is ultimately determining that changing and unlocking of policy, which we know needs to happen at quite an unusual pace.

Emma Floyd: I will just add a couple of points. Just to completely underline Juergen’s point, this is an energy company, and it is really important we think about it as an energy company. Yes, it is going to be doing investment, but it is also going to be developing and, over time, owning and operating. So it is different from an organisation that is purely about investment.

On community energy, the Secretary of State has recently written to Ofgem asking for advice around some of the barriers to community energy and community benefits-type projects. That will be a really useful piece for the Department in the context of taking forward more community energy projects.

Chair: Emma Floyd and Juergen Maier, thank you very much indeed for being our first public witnesses of the new parliamentary session.

Examination of witness



Q43 Chair: For our second witness session, we welcome Simon Bowen, the chair of Great British Nuclear. Simon, you are very welcome. Please give a short introduction.

Simon Bowen: Thank you. Good afternoon. I am a nuclear engineer by background, and I retired for a whole eight weeks before I was asked to come and take a look at what it would take to rebuild the nuclear industry in the UK—what we need to do to build new nuclear, and what system is required. A group of us got together, all international experts, over the space of about 100 days and pulled together a report that had 25 recommendations. The report concluded, “Here are the things you need to do, and here are the things you need to get after,” and one of those was the formation of Great British Nuclear. Great British Nuclear was formed, and I was asked to be the interim chair, which is a massive privilege.

We have been very busy over the last 18 months. We are now about 140 people; we have acquired two sites, and we have a multibillion-pound procurement out in the market with four very credible vendors for the SMR selection that we are in the middle of.

What is it in service of? It is in service of energy security and the journey to net zero and baseload power, and I guess we can explore that as we go through the afternoon.

The prize is huge for us: it is the regeneration of the nuclear industry, and it is not just about nuclear power, but all the benefits that gives in terms of high-quality jobs in many areas that may be struggling with economic development, and huge export potentials. This is about not just an energy strategy; it is about an industrialisation strategy as well.

As I say, it is a privilege to be leading the organisation and building on the nuclear programme that started at Hinkley Point and will hopefully develop into Sizewell, SMRs, through AMRs to fusion.

Q44 Chair: We will explore all those, I can guarantee. Can you just give us a bit more detail on your set-up? The announcement of GB Nuclear was two years ago. Where are you on a permanent headquarters and permanent staff? What percentage of your staff are contracted on a permanent basis, compared to those who are temporary secondees?

Simon Bowen: We are headquartered in Manchester.

Q45 Chair: Is that permanent?

Simon Bowen: Yes, that is permanent, and the headcount currently runs at about 140, 30 of which are permanent employees. It took us many, many months to get a pay agreement through the various Government processes, understandably, which really slowed down our recruitment, but we are now starting to accelerate and bring people into the organisation. We have 45% female and a better ethnic mix than across



the UK, so we have a very diverse workforce, which we are proud of, and we are on with recruiting the rest of the staff.

- Q46 **Chair:** You mentioned progress from Hinkley to Sizewell; it is an example of where the progress has not exactly been fast. Why is everything so slow in nuclear?

Simon Bowen: Nuclear plants are complex pieces of engineering. Let us not forget that we had 20 years where we did no nuclear developments in the UK at all, and therefore the skills and capabilities diminished to the point where Hinkley has had to rebuild the industry and has done a very, very good job. I know Hinkley gets mixed press, but there are some really easy comparators between what everybody says is a fantastic build in Taishan. Hinkley is two years behind Taishan—one year for covid and one year for engineering changes, and those are both massive lessons learned. But these are very big, complex infrastructure programmes, and this is a first of a kind.

Now, to Sizewell, they will learn an enormous amount from it, and there is a lot of data to say that the physical costs of the kit will go down by around 20%. But then when you look at the burden of administration that we put on the organisations in terms of things like the DCO and the environmental permitting, the latest data would tell you that the environmental impact assessment alone is 75,000 pages long. That has an enormous burden on the industry, and I can cover how we handle that a little later on.

Back to the learnings, though, what can we learn from Sizewell? We learn about replication from Sizewell and about all the supply chain development that Hinkley and Sizewell have done, and we can pick that up and use it in whatever we build, whether it is another gigawatt reactor, but critically into the SMR space as well. So you have to consider it a programme.

The final point I would make is that one of the big recommendations we made in the report—I think it was the most important—is that you have to do this as a long-term, multi-year programme. I loved what Juergen just said about being unapologetically long term, and we have to be—we are a multi-decade programme. Until we can give that certainty, it is very difficult for the supply chain and industry to invest. So that long-term commitment to Hinkley, Sizewell and then fleets of SMRs is the core of what will help us to drive the cost of nuclear down and get it quicker.

- Q47 **Chair:** These are very good points. My question was about speed. You have made the case for the technical complexity and the regulatory framework being part of it. Is that why it takes so long to make decisions?

Simon Bowen: Decisions in what respect, Chair?

Chair: To go ahead. Was it in 2007 that Gordon Brown's Government approved Hinkley? And construction started in 2016, if I have got that



right. We still do not have a final decision on Sizewell. Are there technical reasons behind that? What are the reasons?

Simon Bowen: As you would expect, there are a multitude of reasons. There are, of course, technical issues in getting the design to the stage where you can take it to final investment decision, but there is also all the work you have to do around consenting orders and environmental permitting, and those are all multi-year pieces of work. The amount of work required to get to the point where you can get a permit is significant. We are planning on six years at the moment for a consent order, which we think is really tight, and we have to bring that down considerably. That is one part of it.

The other part is that these are really risky investments for first of a kind for a gigawatt scale of plant. That is why the SMRs are really attractive, because they are a smaller scale and their whole premise is that you can build a lot of it off-site and build it modular. You learn for the first one, but the second, third, fourth and fifth will be much, much quicker, and therefore the learning curve and delivery are much quicker. The big advantage of SMRs is you have much less time between when you start the project and get them on to producing electricity, and they will get faster and faster because you have learned so much.

Q48 **Chair:** We will move onto SMRs in more detail shortly. Just one more question from me. I think I am right in saying that the new Government has not set targets for nuclear energy or clarified its ambitions for GB Nuclear. What have they said to you about targets, if anything?

Simon Bowen: We have had a number of great engagements with the Secretary of State and Lord Hunt. At COP29, the Secretary of State talked about how vital nuclear energy was as part of clean energy, all of which is very helpful. We have talked to Lord Hunt about what the target is. The target is really important because it sets down a marker to say, "That is what we are aiming at." He said that until we get the multi-year spending settlement, it will be very difficult to set that target, which we fully understand.

Having said that, I have made what I think is a valid suggestion. As you design that system— what goes where and when, as Juergen was talking about—out of that should come the nuclear target. If we are clear that that is exactly what is going to come out of the system work that NESO and GBE are doing, that will help settle the industry and give us the clarity we are looking for. Hopefully, that makes sense.

Q49 **Bradley Thomas:** Welcome, Simon. You have touched on this already, but I will ask the question. *The Telegraph* has quoted industry sources as saying GB Nuclear is "shackled by red tape" and a "tortuously slow" decision-making process. Do you agree with that?

Simon Bowen: No, I do not agree with it. Does it go as fast as I would want it to? No, but we are talking about substantial amounts of public



money, and the rigour that you apply to assessing that we are making sure we spend that money sensibly is absolutely a duty for us and a duty for Government. Anything I say about speed has to be caveated by that. Therefore, I fully understand that we have to make sure that the decisions we are making represent good value for money for the taxpayer and give us what we want in terms of energy security in the journey to net zero.

However, there are things we should be looking at, and this is just as appropriate for GBE and what they need to do, which allow us to move at pace. I use the analogy of the Olympics. The Olympics was an amazing project, which we delivered on time—we had to deliver on time—but the way it was delivered on time was that we had a forcing function across Government which was absolutely clear on the imperative for the Olympics, and our parallel is energy security. That forcing function can drive parallel decision-making within Government Departments, which is absolutely valid for what we need. If we are serious about delivering to our energy security targets, we absolutely need that, because if we make decisions in series, we are simply never going to get to the targets we have set. We have to find a different way of doing things. That is not a criticism of any individual or any Department; we just need to reinvent the way we are doing this if we are serious about delivering energy security, and that forcing function for me is absolutely crucial.

Chair: We will move on to SMRs and the selection programme with Josh MacAlister.

Q50 **Josh MacAlister:** Hi, Simon. I have a few questions that I will try to move through quickly. Just to pick up on a theme raised in the two previous questions, are you permanent yet or are you still interim?

Simon Bowen: I am interim.

Q51 **Josh MacAlister:** And the same with the chief executive?

Simon Bowen: Correct.

Q52 **Josh MacAlister:** How long has that been interim now?

Simon Bowen: A couple of years.

Q53 **Josh MacAlister:** Spring 2025 is the date that has been shared, and Governments sometimes refer to having only two seasons in a year, spring and autumn. Can you give us any more clarity on when in spring you expect to make an announcement about the next stage of the SMR programme?

Simon Bowen: No, and the reason is that we are into the first stage of negotiations now—we are into a discovery phase with our negotiations. I cannot go too far, because it is obviously commercially sensitive. We are in an iterative process with the vendors. We have four great companies, and we are working through what their solutions are, because they are quite different—they are very different companies.



Q54 Josh MacAlister: I ask because there has already been a series of delays. I know that these are not entirely within your control, but in terms of the part that GBN plays, they want confidence and certainty about a process that keeps moving, and spring is not a confident envelope; it is quite a broad one.

Simon Bowen: We have spent a lot of time talking to the Department, and we are more comfortable with the spring date than we have been with the previous dates, because the spring date is something we have developed with the Department.

Josh MacAlister: The spring window.

Simon Bowen: Yes, spring.

Q55 Josh MacAlister: If 24 GW by 2050 were still the goal, would we be on or off track for it at the moment, with the delays we have currently had with the SMR programme?

Simon Bowen: Are we off track as a result of the SMR programme? No, I do not believe we are. If you were serious in terms of a target of 24 GW, we would have to do things differently, and we would have to look at gigawatt as well as SMRs; you would have to do both.

Q56 Josh MacAlister: Can you briefly talk us through the logic for the SMR competition process itself? The US Federal Government have taken a different approach—not for SMRs but for AMRs—and are backing what you might call two national champions, X-energy and TerraPower. They have co-invested, made the decision and are getting on with construction. We have potential domestic champion business here in the UK, but we are taking a different approach, which will have an implication on the timings of things. Can you talk us through the competition design itself, where that came from and the choices that were involved in it?

Simon Bowen: The decision to run a selection process—a competition—was on legal advice to the Department, and you would have to ask the Department exactly what that legal advice was, but the decision was made around subsidy control. We were therefore informed that the most appropriate approach to follow was a selection process.

Do I support the selection process? Yes, because as well as producing energy security and net zero, we have to be able to demonstrate value for money, and therefore we have to be able to do some comparisons to determine what is value for money and what is not. The selection process is the right way to do this; we just have to move it as fast as we possibly can so we do not fall behind countries that have direct awarded.

Q57 Josh MacAlister: Thinking about obstacles and challenges for progressing—things like land and private investment—what are you most worried about risk-wise for the next stage of the SMR programme?

Simon Bowen: For the next stages, once we have made the decisions, we then have to ramp up the skills. The skills and capabilities that exist



across the UK are very similar to the skills and capabilities that sit in infrastructure and are almost identical to the skills we need in the very rapidly increasing defence. What keeps me awake at night? Skills capability and supply chain capability, and we will only get to really understand that once we get to the next stage of the selection process.

I am not concerned about land, because, through all the sites in the policy statement, we have enough sites that we can access and where we can successfully develop nuclear. There is a critical decision that Government need to make. If you remember, the morning before the previous Government announced the election, they said, "We are going to do gigawatt in Wylfa," which came as a surprise to us, I must admit.

Josh MacAlister: The next questions are about gigawatt.

Simon Bowen: Fabulous, let us cover it.

- Q58 **Josh MacAlister:** Turning to the final bit from me, I have a concern that we are being too linear here about SMR, AMR and gigawatt programmes. We have GBN mandated with only one task at the moment, which is the SMR competition, and that then needs to fit into a world where we have the 2030 clean energy target. The SMRs will not play a role in that because of the timelines involved, so it will be beyond that period, which will probably be about grid. But then there is a whole series of questions about alternative routes to market for private users of the energy, on which we do not have policy, and there is also the AMRs. My worry is we are all focused on the SMR competition, but we actually need multiple tracks and to be able to move fleet of foot on this stuff, as other countries are. Is that a concern you share as GBN looking at the policy space?

Simon Bowen: GBN is set up to deliver the Government's new nuclear programme, with the first focus on SMRs. Are we spending enough time working with the Department on AMRs? We have not been to date, because we have been focused on getting the SMR selection process up and running, but we are now turning our attention to it. There are some really interesting developments within the AMR space, and it is absolutely fertile territory for us to look at and run parallel tracks; that is No. 1.

What the market-led approach—the likes of community nuclear power—is doing is really interesting. It is different to what GBN is doing because it is off-grid and it is a community-led project, but we would absolutely support that type of market-led approach because we need it all. If we are serious about nuclear as baseload power, we need it all.

- Q59 **Josh MacAlister:** Would you accept that there is currently no process, facility or function of Government that would enable that? Not just for a community power company but for people who may wish to invest in a data centre and want to locate a small nuclear generator next to it.

Simon Bowen: There is a lot of work to do. There is a group of us who understand what we need to start looking at. Is there a defined process



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where you could put something in one end, and it comes out the other end? No, there is not. There is a lot of work to do on regulation, because the regulating framework has to completely change to make AMRs deliverable in different locations, but there is a group of us who are now starting to turn our attention to it. The alternative routes to market work that the Department did last year, or early this year, also contributes to that as an input, but be assured that we are working on this, because we see AMRs as a critical part of the future energy mix for nuclear.

Chair: Thank you very much. Claire Young is going to ask you about siting and large-scale nuclear.

Q60 **Claire Young:** You have obviously purchased the sites at Wylfa and Oldbury. You have already touched a little on the question of the steps you are taking to evaluate the potential for further gigawatt-scale nuclear power in the UK. Given that Hitachi has already abandoned its plans for a new nuclear plant at Wylfa due to rising costs, what steps are you taking to ensure that history does not repeat itself at this site?

Simon Bowen: A policy decision is required about what you put at Wylfa—please stop me if I am not answering your question, but I think I know what it is. Say you make a decision that you want to do gigawatt at Wylfa, well, the world has moved on significantly and in a number of ways since the Hitachi investment. First, as set out in the report we did, which was accepted by the Department and the then Government, and I believe it has been accepted by this Government, Government has to invest at the early stages of nuclear programmes because the private sector simply will not take the risk on its own; that is so obvious across all these. So, lesson learned No. 1 is that whatever we do at Wylfa will have to be Government-backed.

Say you do a gigawatt at Wylfa, that is stage one. Stage two—I have said this before in public—is that you need to determine which of the best technologies to go ahead with. It could be another EPR, the French design at Hinkley and Sizewell, because you would then be using units five and six and you would get the economies of scale and the economies of replication, or it may be another design, and there are only two or three in the rest of the global market, but you would have to take a good look at that.

There are sufficient lessons learned from the other technologies' implementations around the world and from the EPR's implementation in the UK that would indicate to me with Government backing that a gigawatt is absolutely deliverable, and it is deliverable at a more predictable cost than was ever possible when Hitachi pulled out.

Q61 **Claire Young:** If I understand your answers to the previous questions, you have been focusing on the SMRs, so you have not taken significant steps to do that evaluation. What are you basing your confidence on?



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Simon Bowen: My confidence is from my knowledge and the knowledge of industry experts we have direct access to either in GBN or outside GBN. What is stopping us is that we do not have a policy for gigawatt; we do not know what the policy for gigawatt is. It is such a major investment that it does require a policy decision by the Government. At the point they make it, all that I have just said is valid, but we cannot go forward without that.

Q62 **Claire Young:** Do you think the proposals set out in the civil nuclear road map and the consultation for a new nuclear national policy statement are adequate to realise the Government's stated ambitions?

Simon Bowen: They are adequate in terms of intent and direction. As part of the declaration of what the nuclear policy is, this Government, in intent, have said that they absolutely support it, because they have said they support gigawatt and SMRs. I do not think there is anything that challenges the detail of the road map. What we need is policy to now get into that in more detail and accelerate potential—how do you select and then get into the projects?

Q63 **Claire Young:** You need policy in order to be able to take those next steps, but beyond that simple decision that we should go ahead with gigawatt, is something else needed in order to make this realisable?

Simon Bowen: Not in the policy space, because Sizewell is being built within the same policy environment. This is just a declaration that we are doing more gigawatt. Are there more enabling activities we need to do? Absolutely. There is a huge amount we need to do in the enabling space that allows those projects to be delivered at pace and at a similar pace to other countries.

Q64 **Claire Young:** Could you say briefly what those are?

Simon Bowen: Yes, sure. This again shares the space that we were talking about with Great British Energy and Mission Control. We need the long-term programme to create the confidence so that people will invest, and then the enablers sit in the space of regulatory frameworks, permitting frameworks, DCO, the consent order process, and our real nervousness about judicial review. The nervousness within the system about being called into judicial review drives so much detail into the DCO applications, the environmental permits and so on—in terms of the level of detail, I gave you that statistic earlier on—that it is really slowing down the process for us to get to final investment decision and then into the build process. Then, of course, there are the skills and the supply chain, where there is a lot of work to do, which again comes from long-term certainty through the programme.

Chair: That very neatly brings us on to our next topic, which Torcuil Crichton will be asking you about first.

Q65 **Torcuil Crichton:** Thank you, Simon, for coming in. I suppose it is reassuring, given your job, that what keeps you awake at night is skills



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and a skills shortage. I do not believe for a second that you are retired; you simply finished an apprenticeship, didn't you, and moved into this job? Part of the problem is that around 40% of people in the industry are in the over-50s category, and you have a gap of 40,000 that you have to fill by 2030. You say it keeps you awake at night, but have you thought about solutions for that?

Simon Bowen: Some great work was done by Sir Simon Bollom when he pulled together the Nuclear Skills Taskforce. As a group of industry executives and leaders, we sensibly looked at defence and civil because defence and civil are one conversation. If you look at the extra demand that AUKUS puts on the civil and defence nuclear sector family, it is not 40,000; it is more like 140,000. It is enormous.

There is no simple solution to it. However, what are we doing? We have the Nuclear Skills Executive Council, which is a group of all the chief executives of all the nuclear companies, including Government and the industry—BAE Systems, Babcock, EDF and so on. As a group, we have signed a charter about the way we are going to behave, because it is not going to help if we start robbing each other's people. We have made a commitment that says we will double the number of graduates and apprentices and quadruple the number of PhDs that we bring into the industry.

The funding is in place this year from the MOD and DESNZ to support that. We have to fight for the funding for next year to make sure that it continues. It is then supported by what is probably one of the best advertising campaigns I have seen since I have been in the industry, which is Destination Nuclear. It was developed by the Young Generation Network, so the youngsters within the industry, people not of my age and far more creative—luckily on both counts. They have pulled together a campaign that tries to reach out to people who might be interested in nuclear and a website that pulls together every nuclear company in the UK, as a centre where people can come and see all the logos and click into every job available in the UK nuclear industry. We advertise together; a long-term advertising campaign has also been put out there on televisions, and you may have seen it on the tube. Attracting people in is multifaceted. We are also looking at what are called mid-career switchers—people who are interested in coming back into either STEM-based subjects or nuclear. We also have to do a major piece of work to improve the public's perception of nuclear. As a nuclear engineer, I can say this: we are absolutely rubbish at explaining it in a short, interesting way.

Ms Billington: That is not unique to the nuclear industry.

Simon Bowen: Fabulous. There is probably a pile of nuclear engineers who want to scream at me now, but we are not very good at describing how fantastic nuclear is in terms of career development and career opportunities or getting over public perceptions about what nuclear is and is not. We have a lot of work to do in all those areas, and it still keeps me



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awake at night because it is a massive challenge, given the numbers that are required.

- Q66 **Torcuil Crichton:** You said your other big challenge is the supply chain and the domestic supply chain. How resilient is that supply chain? What are the weaknesses and what can you do to address that?

Simon Bowen: Thanks to the work that the teams have done at Hinkley and Sizewell, it is far more robust than it was five or 10 years ago. The supply chains are geared up to support nuclear programmes. The individual vendors in our SMR selection process have all done a huge amount of work in the supply chain to work out which suppliers they want, and they are well on with their engagement. The engagement has happened and is in progress. The key thing that is required now is clarity in terms of, "This is where we are going, and this is how much we are going to build," which will be the final stage in terms of people pressing the button for the recruitment that is required. The initial work of identifying what supply chains are required has been very well done by the vendors Hinkley Point and Sizewell. What we now need is clarity on the next stage, which would allow people to recruit—they are recruiting already, but to recruit to the scale that is required within the industry.

- Q67 **Torcuil Crichton:** I get you in terms of where you are going. Where you are traditionally is in Cumbria, Somerset and Suffolk. Are you looking after the footprint of the jobs heritage in these areas while you are looking at new areas? I might also ask, from a Scottish perspective—Hunterston, Dumfries and Galloway, and East Lothian—whether it is a matter of regret for you that there is no nuclear in Scotland, when we have something like 1,200 workers travel every week to Sizewell from Scotland, and home?

Simon Bowen: This is a personal view, not a view of anyone other than me: yes, of course. There is a fabulous nuclear heritage in Scotland. I spent three years working in Dounreay; the amount of capability that exists in Scotland is substantial, and we will do everything we can to capitalise on that capability.

The other big opportunity that exists with SMRs, and indeed with gigawatt, is that as you move towards a much more modular approach to construction, the modular factories do not need to be next to the site. They can be where the workforce is. One of the big attractions is you can take the work to the people, as opposed to the people having to travel. One of the biggest challenges you have on big infrastructure projects, particularly nuclear projects, is the number of people who need to travel to help you with the on-site construction.

- Q68 **Torcuil Crichton:** Do you have any level of engagement with the Scottish Government about that modular programme, and the fact that there are so many skilled people there in Scotland who could do it?

Simon Bowen: I do not.



Q69 Chair: Can I ask you about the way the selection programme links to support for the supply chain? There has been some comment about some bidders using US or Czech Republic supply chains at the expense of UK ones. The suggestion is that that is because of the way other countries are much more inclined to use social value in their contracts than we are in this country, so there may be the potential for non-UK suppliers winning contracts. This goes to the point about suppliers having the confidence to continue to build on the investment. You made the point about suppliers being more robust now, but there is a long way to go to cover that shortfall of 140,000 workers. What is your response to those concerns about the way the contracts might be let?

Simon Bowen: We are in the learning phase with the vendors in the SMR process at the moment, so it would be wrong of me to comment. I am too distant from what their proposals are, in terms of where they will seek to get their main components and their main work from. We have to be careful, because we cannot legislate how much UK content there should be.

Q70 Chair: No, but you can do something on social value, can't you?

Simon Bowen: Yes, you can. Social value is a very important part of our selection criteria, as it is in other Government contracts. It is absolutely in there. But as part of the selection process, we will be looking very carefully at where the individual vendors choose to draw their capabilities from. I cannot go any further. Apologies, Chair.

Chair: This brings us to costs, investment and public support. Polly Billington, you are next.

Ms Billington: I did not have myself down for this, I thought it was Wera who was doing this one.

Q71 Wera Hobhouse: Since I have been asked, I will ask some questions that the Committee has very helpfully put together. What steps are you taking to develop the domestic nuclear supply chain and ensure nuclear projects source from British companies?

Simon Bowen: That is aligned with the conversation that we had earlier on. As Great British Nuclear, of course we are drawing on British supplies.

Q72 Wera Hobhouse: Sorry, I asked the wrong question. Several nuclear projects in the UK have seen costs spiral, investors withdraw and timescales lengthen. You have also already really responded to that, but the main question that always arises around nuclear is the public support piece, because people are worried about long-term costs, but also because nuclear is a technology that frightens them. I have shared with the Committee that I am originally from Germany, where we were saying, "Atomkraft? Nein Danke" We were worried about the long-term costs, and particularly about the risks of storing and the legacy costs that you have with nuclear waste. So you still have a piece to really work on in persuading the public that this is a long-term, safe source of energy,



not just in the next 10 years but beyond that, and about what we are doing about the legacy costs of nuclear energy.

Josh MacAlister: Not a view shared by all communities.

Wera Hobhouse: No, but we are a Committee that wants to express different views. I am sure I am not the only one who thinks that, and it would be interesting to hear about that. I would also like to hear about your assertion about the baseload piece. But let us first talk about allaying some fears that I, and people like me, might—quite irrationally—have around the safety of nuclear energy.

Simon Bowen: With regard to the management of the legacy wastes, you are taking evidence from the NDA, and you should be talking to them about how they are—very effectively—dealing with the current wastes that exist.

Let me come back to the start of your question. In the work that was done in preparation for COP, a public survey was done of what people thought of nuclear, and 65% of the public support new nuclear as a power-generating source. The majority of those people support Government investing in that and supporting that. In my mind, there is no question that that has changed. In the work that we have done, the younger generation do not have the prejudices that people of my age or many other people may have, because they see the benefits that it has with regard to net zero and its contribution.

Is there more work to do? Yes, of course there is. The facts are that nuclear is the only industry that captures all its waste and deals with it as part of the design. The regulators insist that, as part of the design of any new nuclear reactor, we assess what wastes it is going to produce and how those wastes will be dealt with. We ensure through operation that funds are put aside for the time that it takes to deal with the waste and its safe storage going forward.

I have huge admiration for the quality of our regulator, as have multiple people around the world. Our regulator insists on the safe operation of the plants and the management of the waste. We have a reputation for that worldwide, hence the reason why people want to licence their technology here. The way in which the regulator insists that we both design and manage waste means to me that we are the safest nuclear industry in the world, and there are plenty of statistics to say that that is the case.

Q73 Chair: Can I get you to illustrate the point to Wera's question? I went to Hinkley Constituent—Hinkley B was still open at the time, so I went to Hinkley B and then Hinkley C. Can you quantify for us the difference in the size of the reaction, and therefore in the quantity of waste from new nuclear, compared to older generations?



Simon Bowen: As a proportion, I know it is smaller, but I would be digging right to the back of my limited engineering capability to pull that out. I will write to you and tell you what that is.

Q74 **Wera Hobhouse:** I talked to a small start-up that was wanting to develop new modular nuclear, and I asked a question about waste. Sorry for my rather amateur language around this, but it said there is actually waste that can be dug up—that there are waste products that could be reused. Can you explain that a little? I thought that was also a very exciting opportunity, possibly for new investors in the industry.

Simon Bowen: There are multiple opportunities for the reuse of nuclear fuel. It is well recognised that a number of the materials that are stored at Sellafield can be reprocessed and reutilised to produce energy. If you look at the fuel cycle companies that exist both in the UK and Europe, they are regenerating fuels from fuel that has already been irradiated. There is a whole world of trying to make the most of every ounce of radioactivity to produce power. There are multiple technologies that are available.

The key question for a number of the new technologies is whether they are economic, and what it takes to make them economic. Is that something we are looking at the moment? No, it is not. Are there a number of SMEs that are? Yes, there are, but that is not in our current sphere of what we are looking at. Why not? Because we are trying to deliver power as quickly as we can to answer the question of energy security and net zero. For us, that is too uncertain at the moment, but it may well become a priority sometime in the future. Does that answer your question?

Q75 **Wera Hobhouse:** Well, yes and no, because part of our questions is, what case can you then make to private investors? If that is not the bit, then which one would be the bit where you can make a case to private investors?

Simon Bowen: Are you talking more broadly about nuclear or about new tech and innovative technology?

Wera Hobhouse: No, more broadly about nuclear.

Simon Bowen: The whole debate for private investment in nuclear is who bears the risk. There is plenty of private investment out there that is prepared to support nuclear, as we are seeing through the work that is being done on the Sizewell fundraise. The core question comes down to who bears the construction risk, and that is where Government have to step in, and there are structures to do that. If you take SMRs, for the first of a kind, we will have to support the companies to ensure that that risk is underwritten, because it is a scale of risk that they likely do not want to take, or the cost of them taking it is too high. At a point where you get to second of a kind and those risks are retired, then private sector



investment will flood in, because it is predictable in terms of risk management and return.

Q76 **Wera Hobhouse:** And risk is not defined by the nuclear in itself, but risk just by the duration?

Simon Bowen: There is no greater risk in an SMR, in the designs we are looking at, than there is in any other nuclear plant worldwide. These are well-proven technologies. The only risk that we all have to collectively manage is the construction risk.

Wera Hobhouse: And it is the timespan itself too.

Simon Bowen: It is timescales, it is integration of modules, it is all that construction work. The things we have done elsewhere in infrastructure in the UK need to be brought to bear to minimise those risks. Those are the risks; they are not nuclear risks.

Q77 **Ms Minns:** I wondered whether there are other countries that get this a bit more right than we do, or whether construction risk across the globe is exactly the same. I guess my question is, are there other countries that are more successful in getting the private investment in for the building of their nuclear sector, or is this global? If it is global, what part does this question about public support play? I am looking here at my notes, and it looks, comparatively, like we have lower levels of public support than Germany, France and the US. Does that translate into a greater appetite for private investment in those countries? There are two questions there.

Simon Bowen: The honest answer is I am not sure there is a greater appetite for private investment. Let me take a step back. If you look at which countries are better, the case that everybody points to is Barakah, which is in the Emirates. Barakah was a nuclear new build, which started from nothing, with no capability and no regulator. They built it from nothing, they built the whole process and they built a regulator, with a huge amount of support from the global industry. By the time they were on the second unit, I think, it was delivered to time and cost. Now, is that used as a model? Absolutely. How did they do it? It was a joint venture between the country, the Government and the Koreans. The Koreans were prepared to fix price on their investment, and they did. It was a difficult first build, but they became very good at it.¹

That is a good model to follow. Can you replicate that model in the UK? Well, construction practices and our unionisation mean that that direct approach does not map across into the UK. There are huge numbers of lessons that you can adopt though, and if you can find somebody who is prepared to take the fixed-price risks in the way that they did with the Koreans, absolutely you can start de-risking.

¹ The Committee received information after the session providing [further evidence](#) on the time and costs of building nuclear power at Taishan and Barakh.



Now, is anybody better at getting private sector investment in? The only areas where there is talk about private investment is with the likes of Amazon and Microsoft investing in TerraPower and X-energy in the US. But that is also backed up by DOE funding, Government funding. Is there a model where private investment comes into nuclear? No, not at the moment. I cannot see any model that does it purely on private sector investment at the scale we need to. It always sits between the Government and the private sector, sharing risk but co-investing. Does that answer your questions?

Q78 Ms Minns: Yes, and that then negates the secondary question about where public support nets out in this equation about making it an attractive private investment. What you are saying is it is not even a factor.

Simon Bowen: It is not a factor. It may be a slightly different point, but if you look at the French system, they get public support because of what they give the local communities, and people are clamouring for nuclear plants—that is probably a slight exaggeration—because they can see what is in it.

Chair: I am going to move on to our final section, which is on structure and evolution. Claire Young, you are first, please.

Q79 Claire Young: Obviously, we spoke to GB Energy previously. How do you expect GB Nuclear to work alongside GB Energy, and can you clarify what its specific responsibilities are in relation to nuclear energy?

Simon Bowen: We are set up currently to sit alongside each other, but not to integrate. It is early days, because this is an early stage of GB Energy's formation, and we are right in the middle of some pretty complex commercial work. Therefore, integrating them now makes no sense, because it would be a distraction to both organisations. Juergen and I have an absolute agreement that there are many areas where we should be working closely together and collaborating. In terms of all the work that Mission Control is doing, and all the enabling stuff I was talking about earlier on, that is natural territory for us to sit together.

Now, in time, should we be looking at how the various functions that we operate would be better combined? Absolutely, and we are very open-minded to that. What we have to bear in mind is that, currently, the set-ups of GB Energy and GB Nuclear are quite different: we are an arm's length body, but they are going to be an independent company with Government shareholding. We have to work out how all that is going to work together.

But in terms of how the two organisations work together, GB Energy have no current interest within the nuclear space; it is purely about the delivery of renewables and the decarbonisation of the grid by 2030. Is that the long-term answer? No, it is not, because the two naturally sit



alongside each other and the synergies are well worth exploring—just not yet.

Q80 **Claire Young:** In answer to my question, you are essentially saying they have no specific responsibilities in relation to nuclear?

Simon Bowen: Correct.

Q81 **Claire Young:** Okay. You talked earlier about the fact you are focused on SMR at the moment, because you are waiting for the policy on gigawatt, but how do you foresee your role evolving over time? From your earlier answers, I suspect the answer is that you will focus on gigawatt next, but are there other things that you are likely to focus on once the SMR programme is complete?

Simon Bowen: Well, gigawatt will be determined by whether the Government want to go for a large target and think that the investment is something they are prepared to support. There is no question that we will be looking at AMRs very carefully, because of the likes of Amazon and Microsoft—they call themselves the hyperscalers—getting involved. With all the energy needs of data centres and AI, nuclear is one of the only answers for the levels of power density that they need. It is the natural next step for Great British Nuclear, working with the Department, to work out what that looks like.

Where will Great British Nuclear go in time? In the SMR space, it depends on which vendors are successful, because our model will move as we determine what capabilities and skills they bring, and what we think needs to be supplemented, what we need control over and what we do not. It will be very similar in terms of the process with AMRs. As we explore the market and determine what the market has to offer, that will determine what role we have.

What will be consistent, though, is that we will oversee the nuclear programme, and we will have oversight on behalf of the Government of the entire nuclear programme, with the exception of Sizewell C at the moment.

Q82 **Claire Young:** If we were to pose the question of how we should judge your success, it sounds like it is very difficult for you to set benchmarks when you do not have that clarity about where you are going to evolve to. But what would you say at this point in time?

Simon Bowen: How do I define success? It is delivering to the programme as we set it out and demonstrating that the technologies we choose are long-term value for money for the taxpayer. Of course, if you look at the set-up of the organisation and all the enablers, there are many things that we will have to tick off to say, "Yes, we've done that, and that enables new nuclear development." But once we place the contract with the SMR vendors, what we will be measured on is delivery to time and budget. That is where it is going to go. And, of course, the strategic investment in AMRs in time.



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Q83 Luke Murphy: I had a question I was going to ask specifically related to that, around whether it would make sense for GB Energy and GB Nuclear to be one body. I feel like you have answered that by saying maybe in the future, but maybe you want to answer that at the start of your next answer.

I want to come back to value for money. Obviously, nuclear is only one part of it, but we famously have quite a lot of infrastructure projects that run quite significantly over cost in the UK. I was speaking to someone who is quite senior in a non-nuclear infrastructure company the other day, who talked about the fact that there are engineers who get £1,200 a day on certain projects. I asked them why people were able to do that, and they said it was because they did not think we have sufficient commercial expertise within Government to deliver value for money for the taxpayer. That is a long way of asking whether you think we have sufficient commercial expertise within Government to deliver value for money on nuclear projects and—you may feel like it is beyond your scope to say—on wider infrastructure projects as well.

Simon Bowen: The first part of your question is, will GBE and GBN merge in time? We do not know yet. The objectives of both organisations are pretty stretchy. It is something that we will come back to, but we are both very open to that as a possibility, absolutely.

On the value for money question, if the Government had the right commercial capability and technical capability to drive value for money from nuclear, they would not have formed Great British Nuclear. You would not need it. So the answer is no, they have not. That is why we have been formed. There is a huge amount of work for us to do to define what value for money really is in nuclear projects. Particularly in the SMR space, you cannot judge value for money on one project. If you want to do one project, you do not do SMRs. There is just no point. What you need to do is a fleet of them, and it is the analysis of fleet that will determine whether or not they are value for money. One of the big things we are doing is setting up the development companies, and you will have seen there was another *Telegraph* article about a £1.8 billion potential contract that we are putting into the market. That is all about setting up the development companies with the capability to manage the construction.

How do you de-risk in the way that you do across all infrastructure projects? Well, you do not dig a hole until you have completed the design. It is as basic as that, and there are multiple lessons learned. It is fighting off the need to move fast; the phrase is, "Think slow, act fast," and it is absolutely true. Our aim is to get to a point where, when we are ready to put a spade in the ground, it is no higher risk than any other infrastructure programme. If we can get to that stage, first, it makes it more investable for the private sector and, secondly, we can have a much better view of value for money for the taxpayer.

Q84 Luke Murphy: If that commercial expertise does not exist in



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Government, will there be a way, when we are thinking about other infrastructure projects, to learn from and build on the expertise in your body? How will we ensure that there are some learnings for other infrastructure projects from your delivery of nuclear projects?

Simon Bowen: There are very capable commercial people within the various parts of Government, particularly in the Cabinet Office, in areas of Treasury and in DESNZ as well. What I am talking about is the specialist capability that we have in terms of infrastructure. Yes, there is the ability to learn, and we are talking to HS2. A large amount of the capability we are drawing on has worked on Sizewell and, before that, was involved in Thames tideway. We are drawing from all those lessons learned and all that commercial capability to be able to form the capability we have in GBN and to go into the market with confidence

Q85 **Chair:** I am thinking about whether we have that capability in Government or available in the UK. Juergen Maier said earlier that the supply chain was the big prize. Do you see the nuclear supply chain for SMRs—as that is the leading priority—as being mostly UK based?

Simon Bowen: Yes, I do. If you look at Hinkley and Sizewell, yes, a lot of major component manufacture may happen elsewhere, but 60% to 70% of all the work is done by the UK supply chain. In terms of the construction of factories to be able to build SMRs, of course we want them in the UK. Do I believe they will be in the UK? Absolutely, yes. They have to be. It is our job to make sure that they are.

Chair: That is very encouraging, thank you.

Q86 **Josh MacAlister:** Just a final one from me, Simon, about the decision making as we move through the process towards FID for the SMR round by 2029, which I am assuming is still the target date.

Simon Bowen: Yes.

Q87 **Josh MacAlister:** Okay. You have your chief executive, your board, DESNZ, Cabinet Office and Treasury. How many people are involved in the decision stages along the way? Is that an efficient process for all the things that we have been discussing in this session about pace and expertise? Some real candour from you on that would be appreciated, realising that there is some sensitivity in your answer.

Simon Bowen: Yes, absolutely.

Chair: Simon, I am sure you have been entirely candid all the way through.

Simon Bowen: I have been candid.

Josh MacAlister: It is a tricky one for you to answer, but I am conscious of how we set these things up. We still retain a lot of the decision making in Government, giving you some responsibility without the power.



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Simon Bowen: I am just wondering which size spade I am going to use. Because we are likely to spend a huge amount of taxpayers' money, we have to apply rigour to it. Of course we do, we absolutely do. We have set up a board that has the capability to make recommendations on behalf of GBN. I am comfortable that the process within GBN is moving towards being a very efficient process, because it is not multilayered; it is an executive who reports into the board, with a sub-committee that provides advice to us.

As I pointed to earlier on, to make this happen quicker, you cannot do decisions in series. It requires this forcing function akin to the Olympics, which has an imperative of energy security, and that means that you have to do things differently. I have said this on multiple occasions: everybody is doing their job, which is fine, and this is not about people doing a bad job; it is that we cannot do it in series, and we have to value time collectively, as a system, because in major projects and infrastructure, minutes and days matter.

Q88 **Josh MacAlister:** They all add up. The question comes from a place of sharing the importance around that imperative. But if we have not made a permanent appointment of chair and chief executive in 18 months, using the parallel with Olympic delivery, and putting the two side by side in terms of decisions and time available, we would look a bit off track on nuclear.

Simon Bowen: Of course I would say this, but if you looked at either me or my chief executive, you would never know that either of us is interim, because we are so committed to this.

Q89 **Ms Billington:** Sorry to follow up on Josh. This is no reflection on you, it is a reflection on the system and the process, which is clearly failing in managing to hit your forcing function.

Simon Bowen: It is more about that. Of course we are trying to move at pace, and it has taken us a long, long time to get to a point where we have been able to recruit, but we are now on with it. But what we now need is to become more arm's length, with greater delegations. Of course, we have to earn that trust, but until we do that, then moving at pace is pretty challenging.

Chair: Simon Bowen, thank you very much for giving evidence to us.