

Scottish Affairs Committee

[Oral evidence: Connectivity in Scotland: Digital connectivity, HC 1461](#)

Wednesday 25 March 2026

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Watch the meeting

Members present: Patricia Ferguson (Chair); Lillian Jones; Mr Angus MacDonald; Douglas McAllister; Susan Murray; Jack Rankin; Elaine Stewart; Kirsteen Sullivan.

Questions 59 - 129

Witnesses

I: George Robinson, Head of Government Affairs, VodafoneThree; Neil Smith, Chief Operating Officer, TalkTalk; and Emily Davidson, Director of Policy and Public Affairs, Sky.

II: Alex Mather, Head of Digital Connectivity Forum.

Examination of witnesses

Witnesses: George Robinson, Neil Smith and Emily Davidson.

[This evidence was taken by video conference]

Q59 **Chair:** Good morning and welcome to this meeting of the Scottish Affairs Committee. Today we are looking at digital connectivity in Scotland; it is our second session looking at the issue of resilience specifically. Could I ask our witnesses to please introduce themselves, just their names and a brief outline of their role? I will start with Mr Smith, if I may.

Neil Smith: Good morning. I am the Chief Operating Officer here at TalkTalk. My responsibility is to run anything to do with operational activities and customer services for TalkTalk in the UK.

Emily Davidson: Hello. I am the Policy and Public Affairs Director for Sky here in the UK.

George Robinson: Hello. I am Head of Government Affairs at VodafoneThree, the mobile network operator that came together last year following the merger of Vodafone and Three.

Chair: Thank you all for being with us today. We are looking forward to hearing from you. I am going to pass straight to my colleague, Angus MacDonald, for the first question.

Q60 **Mr Angus MacDonald:** Thank you. If all three of you could reply to this. We have a major problem in remote Scotland with basically a declining population, particularly of the young. I am the MP for, among other places, Skye and Wester Ross. Skye high school was built for 1,000 and there are only 500 children in it. That is the same up and down the west. One of the big issues we have is connectivity, both to mobile phone networks and internet services. The children cannot work from home, the parents cannot do their banking or travel booking, or really all the things that we would consider a necessity.

I have no doubt in my mind that connectivity is a major part of the depopulation of the west. I have travelled very extensively and I am always amazed how in the Alps or far east or in my experience of the Faroe Islands shows that we have a real problem in Scotland with our connectivity. Could you explain why we are so bad when the rest of the world seems to be so good? Emily, why don't you explain it all to us?

Emily Davidson: Happy to, thank you. I will do my best. As somebody who grew up in rural Aberdeenshire, I do understand the difficulties with connectivity at times when you are trying to work remotely.

I should start by setting out Sky's model. We are a retail provider of broadband services and connectivity; we do not own the infrastructure. We buy access to the infrastructure from the existing pipes/cables that are put in the ground, primarily by Openreach, but we do also have a



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relationship with CityFibre, including in parts of Scotland. We are able to sell the service with the connectivity that is there. As you have rightly pointed out, there are areas of Scotland and across the UK that do not have adequate connectivity. That is why schemes like the R100 scheme—a combination of the Scottish Government, the UK Government, Openreach and other operators investing across the whole of Scotland to ensure that these communities that don't have an adequate level of connectivity get that as soon as possible—are so important. We cannot sell a product that isn't there, so we are dependent on wholesale access.

Q61 Mr Angus MacDonald: People say that it is compulsory in other countries to share masts, and we do not share masts in the same way in the UK.

George Robinson: Shall I come in? VodafoneThree is similar to Sky in that for fixed connectivity we buy at wholesale and then sell to customers, but on the mobile side, we own that infrastructure via subsidiaries.

On the mast sharing, on a lot of our network we do that with VMO2. For a lot of our masts, under what is called the Beacon arrangement, we are doing it shared with VMO2. Of course because of the merger now, through particularly good technology in the back end that allows the Vodafone masts and Three masts to talk to each other, you can easily move across them, so I think in reality a lot of that does already happen.

In terms of pushing it any further, we would say you still want some competitiveness in the model. You want to ensure that where there is competitive tension, it drives good outcomes as well through having masts owned by different companies, because so much of it is already happening behind the scenes. Of course because of the merger as well, we are committed to investing £11 billion, so that improvement will come on the mobile side as well. A lot of that is specifically for rural areas.

To bring it back to your original question, a lot of mast sharing does go on. We don't think it would be appropriate to do it more because you might risk undermining the competitive model, which does drive a lot of the improvements you have seen, but where there are specific weaknesses, we are looking at where the investment we have committed to can fill those gaps.

Q62 Mr Angus MacDonald: In terms of supplying our constituents, do you think we should regulate to enforce the sharing of masts? I don't care as much about competition; I care about availability.

George Robinson: I would say we do already share masts a huge amount at the back end, so a lot of that is already happening. In terms of regulation, we think regulation could have unintended consequences. There are certain things you could look to do—for instance, a lot of the emergency services sites could be opened up so other suppliers can use



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those masts. That is something else that we would be particularly keen on. There are solutions out there.

Chair: Do you want to ask Mr Smith the same question? We have not heard from Mr Smith.

Mr Angus MacDonald: Yes. Sorry, Neil, would you like to chip in?

Neil Smith: Yes. I guess similar to Emily's opening, more than anything, that we very much appreciate the importance of connectivity, particularly in rural life, and the impact that it has.

TalkTalk is a fixed network provider. We provide fixed-line broadband and wi-fi, so I cannot comment on the mobile aspects. Again, we partner with Openreach, CityFibre and other altnets to provide network connectivity to communities, so we are very reliant on those networks being built out into those communities; as soon as they are there, we will use them.

Q63 **Mr Angus MacDonald:** The bottom line is you are all waiting for BT Openreach to do it?

Neil Smith: BT Openreach and other network providers. Whether it is CityFibre, Freedom Fibre or Community Fibre, we will aggregate into any of those and be able to retail on the back of them.

Q64 **Mr Angus MacDonald:** I do not think they reach into the West Highlands.

Neil Smith: They don't.

Mr Angus MacDonald: I think it is only BT Openreach, as far as I am aware. Okay, thank you.

Q65 **Chair:** Thank you all. We know that recent subsea cable damage in Shetland resulted in customers on your networks losing service, while customers on other networks remained connected. Can you explain why that is? I will start again with Ms Davidson.

Emily Davidson: Happy to, thank you. The unfortunate incident that you are relating to in October of last year we understand was caused by damage to the subsea cable that connects mainland Scotland up to Shetland. That resulted in a very significant outage, which had a big impact on our customers. The detail of exactly what happened I believe would be a question to put to Openreach, which has access to the cable that is provided to it through Faroese Telecom. I understand that there were a variety of reasons why this was quite a unique incident in terms of being able to fix it, in terms of how long it took for the boat to arrive, the weather conditions and the depth of the cable where the damage happened, which meant that a complicated repair was required.

Chair: Do either of the other panellists want to add to that before I ask my next question?



George Robinson: To build on that, that is exactly what happened. We wholesale, so we do not own the infrastructure. At the same time, we still have that commitment to our customers when things do go wrong. We absolutely accept that and we are very sorry for what happened. Certainly when you do wholesale, sometimes you do not have visibility of the infrastructure and just how brittle some of these things can be. I don't want to pre-empt further questions, but we have definitely now put that resilience in place in Orkney and Shetland to ensure that if something similar happened, like a breakage to this cable, there are backup options.

Chair: Mr Smith, would you like to add anything?

Neil Smith: Again, we purchased our services there from Openreach. The cable that is offered to us from Openreach did not have any resilience at that time. I guess I am pleased to hear that Openreach is putting in a resilient network and a ring to enable resilience that will come in in 2027.

Q66 **Chair:** Thank you. We will come back to Mr Robinson in a second about what measures you have taken, but I suppose to Mr Smith and Ms Davidson my question would be: when you contract with the infrastructure providers, is that not the moment at which you say, "And what will you do to allow our customers to have access when things go wrong?" Because it might not be a cable being cut in the way that one was; it can be weather. We know that too. If you want to provide to your customers and you want your customers to have a good service regardless of these things, other networks seem to be able to do that. Is that not your responsibility to do? I will start with Mr Smith this time.

Neil Smith: Yes, indeed. We do have conversations with Openreach in particular around the resilience and the reliability of its network. The offering from Openreach—the cable to those islands—does not have resilience, whereas I think others may have purchased from Faroese Telecom, which is not available to us.

Emily Davidson: To build on that, we understand that as part of the R100 scheme Openreach will be building resilience into that part of the network up to Shetlands between now and the summer, so in the coming weeks. We are in active conversation with Openreach about securing access to improve resilience for our customers in Shetland.

Q67 **Chair:** The part of it that I do not understand is if other providers who presumably also use Openreach manage to have that resilience, why don't your companies?

Emily Davidson: I cannot speak for other providers and how they connect, but my understanding is that, as Mr Smith mentioned, they potentially had existing commercial relationships in place with Faroese Telecom and were able to quickly use their connections south from the Faroe Islands to Shetland. We did not have those existing relationships in



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place, and at the time of the repair we did not believe it was going to be an outage that would take so long to repair. Had we known that, we have have started those conversations and thought about things differently. However, what we are doing now is ensuring that we do have that resilience built in with this new R100 cable that should be coming soon.

Q68 Chair: Mr Robinson, you suggested that your company is also looking at doing something in that field. Could you explain that to us, please?

George Robinson: Yes. Certainly after the first incident in July, we did see quite how brittle having one connection was and we moved very quickly to procure a second connection from the mainland. Now Orkney is served by two subsea cables for Vodafone broadband customers. I should also say that our mobile services did still work on the island as well, which helped us. We could quickly move customers whose fixed line suddenly went down to using mobile as an interim solution, and we put a lot of things in place to serve that. It still absolutely does not cover losing your fixed broadband.

Orkney is now resilient and there is now a second subsea cable serving Shetland as well, so there are now two points of failure. I think once we understood quite how brittle the connection was, we moved quickly to solve it. It is now, for Vodafone home broadband customers, much more resilient.

Q69 Chair: Will your companies be learning the lessons of that experience for other areas that may be similarly positioned? Yes. I am seeing nodding heads.

Emily Davidson: We are doing an internal review, yes, of resilience across our network.

Q70 Chair: Is it fair to say that you are committed to reviewing your commercial relationships and arrangements to improve the resilience of your network provided to the Highlands and Islands?

Emily Davidson: Yes. We are doing this internal review at the moment as part of that.

Q71 Kirsteen Sullivan: Ofcom guidance states that all networks are responsible for ensuring resilience, regardless of what your own infrastructure is. Clearly there have been examples where you have failed to ensure that resilience, particularly for the island communities. Do you accept that you have fallen short of that guidance in the past and are you confident, with the steps that you are now putting in place, that you will be able to live up to those responsibilities? I will start with you, Mr Robinson.

George Robinson: Yes, of course. I would say that Ofcom guidance here is strong. It provides a very good baseline. The Telecommunications (Security) Act puts a lot of requirements on us. One of the issues is that increasingly telecommunications is becoming critical national



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infrastructure. We are identified as such. As you said at the beginning, if you do not have connectivity it has a deleterious effect on communities. Schools cannot act at capacity; people move away. This is a more recent phenomenon and it is becoming increasingly pronounced.

We do need networks to be resilient. The fact is networks will go wrong from time to time. You can never fully mitigate against that. You can mitigate to make it happen as little as possible. One of the lessons learned from this approach is that island communities do need a different way of operating from those on the mainland, because the impact can be felt much more keenly. That is definitely one of the lessons learned, both operationally and how we deal with customers. I think that is the two sides of that.

Things are constantly evolving. We always need to look at whether we are doing what we can to make our network as resilient as possible. There are a lot of obligations on us. I can certainly speak from the mobile side. You want lots of coverage, you want it to be very good quality and you want it to be resilient. We have only one investment envelope that covers those, so we need to ensure that we are meeting every single objective.

We are operating under the same investment framework we were when there were not those resilience requirements. In some ways we need to co-create with the Government an approach that ensures that critical national infrastructure is supported by the best possible investment framework. That is a long-term discussion that is happening. I know the UK Government, through DSIT, are doing a mobile market review that is looking at whether the investment framework supports the kind of telecommunications infrastructure that the country will need over the coming years.

You are absolutely right that, certainly on the mobile side, we have been lacking. How do we ensure that, especially when you are looking at things like 6G coming down the line, we are a leader and we have in place the connectivity that will serve the economy of the future?

Emily Davidson: That was a good summary of the existing rules and the importance of connectivity. Under the code requirement, there is a resilience requirement with a proportionality element within that. As George said, we believe that the rules and the Ofcom guidance are robust, and we are also looking internally at what lessons we can take from this particular incident to continue to improve the service for our customers.

Kirsteen Sullivan: Mr Smith, would you like to add anything to that?

Neil Smith: After any of these types of incidents, we review what we can do better for our customers, particularly around the service levels, the communications and the resilience. However, we do feel that we comply with all the requirements set out by Ofcom with respect to resilience.



Q72 Kirsteen Sullivan: The thing that I am struggling to get my head around is that although this guidance was already in place, it seems as if resilience was not given the consideration that it merited, particularly for our island communities. We have already heard that other providers were able to have contracts in place that allowed them to keep their service going. I do not understand why that was not built into your contracts and that it has taken this event for that to happen. Could you give me a little bit more detail on that, please? I will start with Mr Smith.

Neil Smith: As I said previously, the resilience of the connections to the islands is provided by Openreach. That whole network is provided by Openreach and we wholesale from Openreach. At present it does not offer a resilient network to the islands. I am pleased to say that it is building that now. I cannot comment on the other providers and how they provided resilience. I would assume that it is part of their obligations for critical national infrastructure that they were able to use other facilities that are available and quickly utilise that service.

Q73 Kirsteen Sullivan: I understand that Shetland Telecom was able to make the switch. Regardless, it does not detract from your responsibilities under the Ofcom guidance. Do you have any comment you would wish to make on that?

Neil Smith: As I said, we comply with all the requirements from Ofcom with respect to resilience.

Q74 Kirsteen Sullivan: To be fair, I don't think the guidance was observed, and I think the Committee has heard the evidence of that from previous witnesses from island communities. Ms Davidson, would you like to comment?

Emily Davidson: We are in a similar situation to TalkTalk, in that we have service level agreements in place with Openreach about guaranteeing a certain level of service. We are glad that Openreach is building further resilience into the network as a result of this. I cannot comment on how other providers were able to access connectivity more quickly in this case, but we are looking at the lessons learned on this.

Our focus during the incident was very much on communications with customers, ensuring that we were giving them as much information as possible. We were speaking very regularly to Openreach to find out what was happening, when it could be repaired, how quickly, and offering alternative connectivity solutions to get people connected until the subsea cable could be repaired. We have definitely learned from this about the need to enhance resilience in that particular part of Scotland.

George Robinson: Yes, I echo what others have said. There were lessons learned. Clearly island communities do have different requirements and different standards. We very quickly realised that after the first outage, and that is why we do now have that backup in place, both in Shetland and in Orkney. From a Vodafone perspective, we feel far more resilient. We also learned a lot of lessons on how we treat our



customers through that time as well, thinking about where things do go wrong, how do you make sure that it is as easy a process as possible to get back online or to stay online? We had some support there in the fact that we did have mobile network that was operational. We could give customers who had lost fixed support solutions, which meant they could use mobile for their fixed requirements. We have that kind of technology that we could provide to them proactively.

There have been lots of lessons learned. We have put that resilience in place on the operational customer side. The processes are far improved for island communities because we do understand what they would need if this were to happen again. Hopefully, take it back to the original point, that is far less likely now that we have that inbuilt resilience.

Q75 Kirsteen Sullivan: Thank you. I do think it is important that lessons are learned, because we had the situation where some people were left absolutely cut off, while others in the same areas had connectivity, so you were in a position of haves and have-nots. That was clearly not a tenable situation.

You mentioned the guidance perhaps having some unintended consequences if it became mandatory. Could you expand on that, please? I am taking it from that comment that you would not agree with it becoming mandatory.

George Robinson: In terms of where it is at the moment, the main thing I would say is that there is an awful lot of sharing already, especially for the 999 system. Every mast has to direct to 999, so that absolutely has to happen. You need that emergency support. With VMO2 across much of the country, we do share our masts. Through Three and Vodafone coming together, essentially our masts will now talk to each other. The market is already delivering that.

On mandating it, I am thinking of the unintended consequences around how it could discourage investment. It could take away some of the resilience you get from having more than one provider. If you have more than one subsea cable, it means that if one goes down you have another one. If you have all masts sharing, if they are using shared infrastructure and they all go down, you have nothing. Having different networks definitely provides that level of resilience, so we would say that you should keep some form of separation, where possible.

I have also said that you could look at how other operators could come on to the Emergency Services Network to provide service as well, so that it is not just through one provider. On this, we can write with more thoughts on our position here to the Committee after the session.

Kirsteen Sullivan: That would be helpful, thank you. Ms Davidson?

Emily Davidson: I agree in terms of the need for balance between proportionate regulation that allows sufficient investment and allows the



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great competition that exists within the communications sector to continue. One of the great things about our sector is that there are regulatory interventions in place to ensure transparency. New measures have recently come in to ensure ease of switching. There are mobile checkers; there are broadband speed checkers. There are lots of things to make sure that our market is very competitive. However, for the providers in the ecosystem that do own network infrastructure, there needs to be enough flexibility so that they can continue to invest.

Kirsteen Sullivan: Thank you, Mr Smith?

Neil Smith: I don't think that I can add any more to what has been offered so far.

Q76 Susan Murray: I am very interested to hear you all talking about the competitive environment in terms of providing the infrastructure. I absolutely hear what you say, but I would like to hear what you think about the competitive environments for your customers. Under your obligation to provide resilience, is there a clause in the contracts that you have with your customers that allows them to switch providers to one that provides a more reliable service if your service goes down for a particular period of time? If so, what is that period of time?

George Robinson: Certainly. If you do not provide service for two days in a row, Ofcom conditions dictate that you have to give about £10 a day to customers and every day thereafter.

Q77 Susan Murray: The same as them being able to switch providers without any penalty?

George Robinson: Again, they would be under contract. Certainly from the Vodafone side, we can articulate what the contractual terms are. In this instance, where the fixed went down, we did immediately provide alternative solutions on the mobile side, so they were not left without coverage. Switching is in place in the market as well, and if service has been below a certain level, there will be contractual protections. Again, that is something from the Vodafone side that we can follow up with.

Emily Davidson: This was a very unique situation in the Shetlands. It was extremely rare and extremely unfortunate that our customers were left without connectivity for such a long period of time. With the switching rules, it would depend on the individual circumstances of people's contracts with us, but we would encourage all of our customers in any situation like this to call in to our contact centre. We have about 4,500 people working for Sky in Scotland. Many of the specialist teams dealing with very complex cases like this would come into our customer care agents in Livingston, who would be able to advise them as they were going through it, but it would depend on the individual terms of that customer.

Susan Murray: Telephones or—



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Emily Davidson: Hopefully their mobile connection, but yes, if not, then when they were back up and running, we would encourage them to get in touch.

Susan Murray: Neil, how does TalkTalk consider that?

Neil Smith: It is very similar. In terms of individual circumstances, we would talk to customers to resolve any concerns that they had. We have the same sort of service level agreements with our providers for any outages for customers. If there is a protracted outage for a customer that we cannot resolve for a period of time, we do allow customers to switch.

Q78 **Elaine Stewart:** Thinking back to the 2025 outage, how many customers were affected and for how long? That is to each of you, so I will start with you, Ms Davidson.

Emily Davidson: We have fewer than 1,000 customers in the Shetland Islands, and all were impacted by the outage for a period of 26 days in October 2025.

George Robinson: With the first instance we had about 1,400 customers impacted, and with the second we had about 600 customers impacted.

Q79 **Elaine Stewart:** How many days were you out for?

George Robinson: The first outage was 11 days; the second outage was 26 days.

Neil Smith: The same timeframe—11 days for the first one, 26 for the second—affecting 404 customers.

Q80 **Elaine Stewart:** On the back of that, how many customers have left your network as a result of that disruption?

George Robinson: Sometimes it is hard to pin down whether it was as a result of that disruption or they wanted to leave anyway, but the churn we see in that timeframe is about 250 customers from our side.

Emily Davidson: We have also seen some churn during that time period, but similarly we are not able to identify the exact reason why customers have left.

Neil Smith: Similar. I guess it was a little bit higher than the normal churn rate we would see across the industry for customers that were impacted by those incidents. I think that is understandable, as customers were very frustrated and disappointed to experience a multiple outage like that, which is very rare, but clearly shows the impact that it has on customers when their connectivity is down.

Q81 **Elaine Stewart:** I suspect the resilience that you are all bringing in should hopefully bring some of the customers back to you. Would that be what you would be looking for?



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Neil Smith: Yes.

George Robinson: Absolutely. Rebuilding trust and showing that what happened before is now a much lower risk, certainly now that we have that extra resilience in place.

Lillian Jones: Sorry, I did not hear Ms Davidson's number from your company, the customers that left following both outages, and similarly with Mr Smith. Could I just have the numbers, please?

Emily Davidson: I think that it was around 25% of our base, but I can write to you with the exact number.

Neil Smith: I can confirm the exact number. I think it was around 130.

Q82 **Susan Murray:** Thank you very much. To continue on the contracts, when customers enter a contract with you, what information do you provide them about the resilience arrangements that are in place? Also, do you consider it to be part of your social obligation as a provider to make sure that the customers understand the conditions that your provision is under? It is for all of you, so I do not mind who starts first. Maybe Neil would start first because he is not in the room.

Neil Smith: Sure. We are very transparent with our sales process and very pleased to operate in a market that is very competitive and offers customers choice. I think choice is the most important thing for customers, particularly to provide a value-based service. We comply with all the requirements around transparency and clear contracts for our customers.

Emily Davidson: Likewise. We make sure that our terms and conditions are very clear to our customers when they are signing up initially, both in terms of encouraging customers to check the broadband speed that they will get ahead of time and the terms and conditions set out exactly what to do in certain situations when things do go wrong. We would obviously be able to provide more information if a customer was to be over the phone. A lot of people choose to sign up to Sky online and on our website we try to make all of the terms and conditions as clear as possible.

George Robinson: Yes, I would say Ofcom do have very strict rules on transparency about what you do. You have to tell customers when they sign up, which we absolutely 100% follow and understand the importance of. What this incident showed was that island communities have certain requirements that are different from those on the mainland. We are committing to clearer communications to them as one of the lessons of this. We have improved materially since these incidents happened in terms of what our customer communication process is if there is a risk of prolonged disruption or as soon as something goes down. We will continue to build that. Again, when we write to the Committee, we can articulate more clearly exactly what we have done to improve customer communications.



Q83 Susan Murray: Thank you. Will your customer communications ensure that your ability to deliver resilience will be included in communications going forward?

George Robinson: I am sure resilience will be a component of that, yes. I should also say the local MP during this phase engaged incredibly closely. We found that a very useful conduit. People went to him, then they came to us. He was in touch with so many people who were impacted and that was a very good channel to reach people as quickly as we could.

Emily Davidson: I would agree. MPs and MSPs played a very important role in this as a way of getting information to us about what is happening because they are closer to the communities they represent day to day and therefore are able to very clearly articulate things and spot trends. We are grateful to all the politicians who have engaged during this time.

Q84 Chair: If I had been one of your customers at the time of any one of these outages—and these are not unique occurrences, they might be rare but they do happen, either because of weather or because of accidental damage, hopefully never deliberate damage—would I have been able to look at the small print on your website or on my contract to find out exactly what your obligations to me at that point were to continue my coverage or not over a period where it was disrupted by the infrastructure that you hire?

Emily Davidson: If you had the kind of connectivity to be able to call in and connect, what we recommend customers do is call and speak to one of our specialist agents, who could answer any questions and talk through that. But yes, a customer would be able to go into either their account on the app or the contract that they received at the time at which they entered into an agreement with us and find all the detail there.

George Robinson: I would say that one of the learnings from the communication side was reactive, fine, but we moved very much to proactive, certainly by the time of the second incident, with SMS texts and information obviously uploaded on the internet. We would hope that customers through mobile could look at that as well. We gave free data—50 megabytes of data for mobile—to utilise on the fixed side and also these small devices, which are basically portable wi-fi devices, which mobile masts can speak to but then they reconnect to the fixed infrastructure in your home. These are all things that we now think is part of a package that can be delivered to island communities when things go wrong. Again, the lessons learned, moving from reactive to proactive measures—

Q85 Chair: What were you doing then?

George Robinson: What were we doing at the time?

Chair: Yes. What did it say in the contract with regard to resilience?



George Robinson: In terms of resilience, we would have to come back to you on what the specific things were. I think what we have learned as well is that for island communities, when we communicate with stakeholders now we do communicate the resilience impacts and we will talk to customers as well. Certainly the fact that there is more resilience now built into Orkney and Shetland will be communicated. We have actively put in place mitigation measures against what happened. Again, it is the lessons learned point. If we could go back and make sure this did not happen, we would love to have done it. It has happened. Ideally, how can we make sure that the risk of it happening again is much lower and that customers are also aware of that?

Q86 **Chair:** That is very good. Going forward, that is going to be the way, but if I may say—and I perhaps mean this as a compliment—that was very much a politician’s answer, Mr Robinson. If you want to follow up on that and give us a bit more explicit detail after the Committee, I am sure we would be very grateful to you for that. Mr Smith, would you like to add anything?

Neil Smith: I think the obligations around restoration times for outages are clear in our help and support for our customers. These types of situations, while clearly unfortunate and very frustrating for customers, will occur. I don’t know whether it helps or not, but we reviewed the fault rates for the islands compared with mainland Scotland. Whereas this was very unfortunate, and there were two protracted incidents in a short space of time, the actual fault rate for Shetland and Orkney is no different from the fault rate that I see in mainland Scotland across all the exchanges in there too. That does not necessarily help those customers that were impacted of course, but it does just make sure that we are clear that all of our communication to customers is honest and transparent.

Q87 **Chair:** I would perhaps suggest, Mr Smith, that you cannot compare an outage to my home in Glasgow that occurs and gets fixed with something that happens on the islands over a protracted period of perhaps up to 26 days. I do not think we are comparing apples and apples, are we?

Neil Smith: The impact is more difficult for those customers that have limited connectivity, for sure. I completely agree. However, we do experience outages for networks on the mainland too for protracted periods of times from any of our network providers. I think the implication is worse, as you say.

Q88 **Jack Rankin:** I want to ask about compensation. We understand that some islanders were dissatisfied with the compensation offered following the outage. Can I ask each of you what level of compensation you offer to your customers and how many complaints and negative feedback did you receive from customers seeking redress? I do not know if you want to start, Ms Davidson.



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Emily Davidson: I am happy to. The Ofcom auto compensation scheme kicks in two days after a customer has called in to notify us of an issue on their line. Under those rules, we would have had to compensate just over 60 customers. However, given the severity of the outage in this case, what we decided to do was compensate all of our customers, regardless of whether or not they had made contact with us to report the fault. We compensated them at the Ofcom guidance rate. The other thing that we did is that although the Ofcom auto compensation scheme applies to residential customers, we provided compensation to our business customers who were impacted as well.

George Robinson: The Ofcom auto compensation scheme is a requirement. We very much fulfilled that. As I said before, we also provided 50 gigabits of data to affected customers to use on the mobile side. Again, you could do things like tether to your laptop. It provided some kind of solution. We had these little devices that we sent out as well, broadband mini-routers that were battery powered, and you could again connect to masts. You might have them at home. If you do not have fixed broadband, you can use your mobile signal connector to connect to it. We sent those out proactively as well, so we did pull as many levers as we could.

On a consumer-by-consumer basis, we did also provide goodwill credit where people were particularly impacted. We put a lot of things into it. The main thing we did was build in the resilience we now have. Customer compensation only goes so far. I think the most important thing they want is for it to feel like the risk is low.

Q89 **Jack Rankin:** Did VodafoneThree come to all the customers like Sky did or did you just contact the ones that told you—

George Robinson: No, Ofcom auto compensation applies to everyone.

Q90 **Jack Rankin:** Did you do that to businesses as well as residential?

George Robinson: Yes.

Jack Rankin: Mr Smith?

Neil Smith: We are also part of the industry Ofcom auto compensation scheme. Those customers who have registered a fault will have received compensation. Considering the extraordinary situation and the limited connectivity alternatives for those customers, we credited every customer with a fixed amount of one month's rental from us. All of our customers impacted were impacted each time for those two events.

Q91 **Jack Rankin:** How long on average does it take customers to receive compensation? Is there any situation where any customers are still awaiting that compensation?

Emily Davidson: No customers from the Shetland outage in October are still awaiting compensation from Sky. Where the automatic compensation



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kicks in is after 30 days for customers who have reported a fault. What that does, to make it as easy as possible for customers, it is an automatic credit to the bill. That occurs for customers who have called in a fault. It did take slightly longer for customers who had not called in to report a fault for us to identify who they were and ensure that they got the compensation, but we did compensate everybody as quickly as we could.

George Robinson: Yes, we are much the same, under the same process as for the Ofcom auto compensation rules. Then I think it was a matter of days where we rolled out the supplementary things we were doing on top. We were not obligated to do so, but we felt it was the right thing to do. There are no ongoing disputes that we are aware of with customers at the moment. Everything has been resolved.

Neil Smith: All customers have received their auto compensation and the extra payment that we provided to every customer.

Lillian Jones: Just picking up on your point, Chair, in regards to contracts and what customers might expect the providers to do during periods of outage, is it possible that each of you can provide the Committee with contracts that were live during the dates of the outages just to help the Committee members understand and see for themselves what the small print says? Thank you very much.

Chair: That might be helpful.

Douglas McAllister: Can I ask a supplementary on that, Chair?

Chair: Of course you may.

Q92 **Douglas McAllister:** On the compensation offered to customers, is it a prerequisite that that compensation is offered to them if they continue to remain customers of each of the three of you?

Neil Smith: The auto compensation scheme applies if they are your customers during the outage. If they leave subsequently, the payment is still made to those customers.

Q93 **Douglas McAllister:** It is not just a credit to a future bill?

Neil Smith: The process is a credit and the customer can then request that as a payment.

Emily Davidson: It is the same auto compensation guidance that we have all signed up to.

George Robinson: Yes.

Q94 **Douglas McAllister:** So even when they cancel their contracts because they are dissatisfied with the cover, you are still compensating all those former customers?

Emily Davidson: I understand that is how the rules work.



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George Robinson: Yes.

Douglas McAllister: I understand that is how the rules work, but is that the case in practice?

Emily Davidson: I can confirm in writing that that was the case, but I would expect that that is what we would have done.

George Robinson: Yes. If a customer leaves and their contract is in credit, they are entitled to that money.

Q95 **Douglas McAllister:** So you can all confirm in writing after this Committee that anyone who cancelled their contracts still received the full level of compensation that they were entitled to and those payments have been made?

Emily Davidson: Yes.

George Robinson: I absolutely commit to that, yes.

Douglas McAllister: You are all confident on that?

George Robinson: Yes.

Douglas McAllister: Thank you.

Q96 **Chair:** Can I just follow up on that? Does that include people who changed contract during the outage? Because we did hear of examples of that.

George Robinson: Vodafone will take that away and that will be part of our supplementary response to you.

Emily Davidson: Likewise; I would need to check on the numbers.

Chair: I understand that is quite a technical thing.

Neil Smith: Yes, I would need to check on that as well.

Chair: Okay, thank you.

Q97 **Mr Angus MacDonald:** Mr Robinson, you have been doing an investigation into putting in an additional subsea cable and you are meant to announce in the spring of this year.

George Robinson: Yes.

Mr Angus MacDonald: How is that getting on? How is it looking? Is it likely?

George Robinson: It is ongoing. The feasibility study is ongoing. Thank you for raising it. We will be in a position soon whether to confirm or not. Whether we do or do not proceed with that, there is already that resilience in place. We do have two links now into Shetland, but you are



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right to say we are looking at a third one. We will revert to you as soon as we know either way if that will proceed.

Q98 **Mr Angus MacDonald:** Why would you do it if there is already, for example, a spare BT cable?

George Robinson: For various commercial reasons, it would be useful for us to have that link to have more resilience. It gives us another link into the Faroe Islands, which provides further connectivity. Looking at this globally and having more links across to the other parts of the world is always useful. There are various reasons why we would look to improve connectivity. Again, having our own subsea cable versus wholesaling gives you a bit more control. There are lots of different reasons. That is part of why we are looking at the business case for why we should do something like this.

Q99 **Mr Angus MacDonald:** You are also looking at other operational changes. Presumably there is an opportunity, for example, to offer 6G to the islands or whatever it is. Are you doing anything on your masts or any other major operational changes for Shetland?

George Robinson: Yes. As part of the merger we have committed to 99% 5G standalone coverage. 5G standalone is super good 5G. A lot of what you are seeing for 5G now is just a slightly polished version of 4G. As part of that, the island communities will get that investment. We are already seeing a lot of the initial technology, which allows the masts from the Three side and the Vodafone side to talk to each other; that is a prerequisite before it does become one consolidated network. Those improvements are already happening. In the longer-term plan we are still looking at exactly where that 11 billion goes across the country. Certainly Shetland, Scotland, will be getting its fair share. We have committed to that.

Q100 **Susan Murray:** This is directed to Ms Davidson and Mr Smith. We understand in correspondence with customers that you have discussed potential future involvement, such as additional subsea cable and satellite technologies. Could you confirm whether you have any concrete plans to improve your network resilience through satellite?

Emily Davidson: Our focus is on the R100 subsea cable that is coming out and on the fixed connectivity to Shetland rather than satellite.

Susan Murray: Is that the same for you, Mr Smith?

Neil Smith: Yes, it is exactly the same. We are reliant on the fixed resilience provided by Openreach.

Q101 **Chair:** Are you able to tell us when you think that will be available?

Emily Davidson: Representatives from Openreach would be better placed than me, but my understanding is it is between April and June of this year.



George Robinson: I can come in on the satellite stuff. Satellite is very important to us. We are a strategic partner with a company called AST SpaceMobile. It provides an extra layer of connectivity on top. That is looking at direct to device as well. We are trialling not just these satellites talking to the masts, but talking to the mobile phones directly.

We already do use satellite for a resilience backup on masts. If masts are going down because they cannot talk to each other, the transport between them is down, satellite can do a bit of that backfill. It is not perfect; it is not as good as terrestrial, but it is already providing some solution there. The next step is direct to your mobile phone. It is not going to happen tomorrow, it is not going to happen next month, but it is coming down the line, some form of resilience. The direct to device stuff is not going to be lots of data, but it will certainly be enough to give you something. In a crisis situation, having a small amount of data is always going to be better than having none. That is definitely part of the resilience mix and it is something that at Vodafone we are quite passionate about bringing in as part of our connectivity solution.

Q102 **Chair:** I think I am right in saying that the geography of Scotland in some places—probably quite limited places, to be fair—does not lend itself to the use of satellite.

George Robinson: There is part of that in terms of where the satellites are in the orbit. That is an issue, but I do know we have used it for certain mast solutions where masts are down. It has been possible to utilise that. Again, it is not something to get overexcited about at the moment, but it will certainly be part of the mix coming down the line.

Chair: Thank you very much. Ms Davidson, Mr Robinson and Mr Smith, thank you very much. That is the end of our questions to you this morning. We are very grateful to you for your evidence and we are looking forward to receiving the follow-ups that you have all committed to give us. Thank you for your contribution to our inquiry. It has been very helpful.

Examination of witness

Witness: Alex Mather.

Q103 **Chair:** Good morning, and welcome back to this session of the Scottish Affairs Committee looking at digital connectivity. Mr Mather, you are very welcome to the Committee. We are grateful to you for coming along this morning. Could you just briefly introduce yourself and tell us what you do? Thank you.

Alex Mather: Thank you very much for inviting me to give evidence to this very important topic area. I am head of an organisation called the Digital Connectivity Forum. We essentially are the leading advisory forum to the UK Government on digital connectivity issues. We are a membership grouping consisting of about 20 of the largest telecoms



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players across the UK, both fixed and mobile. Very importantly, we have both DSIT and Ofcom as members as well.

Q104 **Chair:** Thank you very much. We have heard this morning a little bit about subsea cables being cut, but of course in Scotland many of the outages that we hear about are related to climate and weather. Could you give us an indication of what circumstances would cause there to be outages caused by weather?

Alex Mather: Sure, yes. At DCF, we have done a fair amount of work on extreme weather events and their impacts on networks. Indeed, we have done quite a bit of work looking and working with international companies, as many of our members have international operations. Extreme heat can be an issue that can cause outages, obviously not necessarily at the moment such an issue across the UK or in Scotland. What is an increasing issue is storms, as we have just been speaking about, in terms of the damage to subsea cables, but also across other parts of the UK. Extreme winds can blow over telegraph poles and mobile infrastructure as well. Essentially I think the main threat is storms and flooding. These are significant challenges for the sector at the moment.

It is probably also fair to say that I guess Ofcom evidence and other evidence shows that storms and extreme weather events are becoming increasingly common. As the frequency is rising, the severity is also amplified by remoteness. Rural and remote communities are particularly vulnerable to storms and therefore investment in mitigation is even more essential.

Q105 **Elaine Stewart:** What measures are providers putting in place to address the climate-related risks and reducing single points of failure on the network?

Alex Mather: Yes, it is a great question. I suppose it is important to note that through upgrade programmes to mobile coverage, including on the 4G side, that has provided upgraded masts, which are more resilient, and more diverse routing, which provides automatic failover mechanisms as well. As was discussed in the previous session, Ofcom's guidance, while it is not prescriptive in terms of technologies and solutions that providers should supply, does clearly state outcomes. It provides advice on technical options for providers as well. That has been important, particularly with regard to improving network design and reducing single points of failure, as you highlight. Diverse backhaul paths, multi-operator sharing and having appropriate procedures in place if there is an outage to rapidly restore connectivity as quickly as possible are an important part of the guidance as well.

It is incredibly important also to highlight that providers should not necessarily apply a crude one-size-fits-all approach, but should have tailored approaches for specific geographies, islands and remote areas in particular. We have heard in the previous session about having multiples of subsea cables, but it is also about the physical nature of the subsea



cables themselves, if they are exposed to extreme weather or are more likely to be impacted by high winds and so on.

Q106 **Susan Murray:** Do you think those measures are enough to mitigate the risks or do you think that there is room to go further?

Alex Mather: I think it would never be possible to have a network that is resilient to every scenario of extreme weather. That is where perhaps other solutions and technological innovation can support. We just heard a little bit about satellite technology. I think George from VodafoneThree was talking about the direct to device capabilities on the mobile side. I do not think the capabilities of Starlink for fixed broadband purposes were explored in full, which provides a very resilient and excellent option currently to residents in remote and rural areas.

Going back to the mobile side and direct to device, as was outlined, it does not currently offer the same capabilities as 4G and 5G connectivity due to having lower bandwidth capabilities. It is an important aspect to throw into the resilience mix, and it is also reliant on being outdoors, so there will be limitations there. That is a long way of me saying there are things happening that I think are helping to overcome these challenges.

Q107 **Kirsteen Sullivan:** Are there any examples from other jurisdictions where there are particularly effective resilience arrangements in place? Obviously we want to compare like with like, so other jurisdictions that have similar geographies and challenges.

Alex Mather: One of the questions out there is in terms of the regulatory requirements, and obviously other jurisdictions have other regulatory requirements in terms of power resilience and battery backup to end users. That is something that does not matter in terms of the geography of the nation as that is an outcome-focused approach, which is probably appropriate when we are discussing these topics, rather than regulators or Government trying to mandate certain network architecture, which is something that is tailored to specific geographies. There are definitely approaches from the regulatory side from other nations and we can definitely follow up in terms of some of the specifics around Europe on that point.

Q108 **Kirsteen Sullivan:** I will reframe the question slightly. Who does this well? Who does resilience well? Which other countries?

Alex Mather: In terms of some of my own research—I have not directly engaged with these nations, as such—I think Norway and Finland have some appropriate technologies in place. Obviously they are perhaps more comparable in terms of some of the geography and weather events, compared to some of the work we have done looking at some of our operators' capabilities in Africa. Obviously that has been focused on extreme heat and work they have done to assess infrastructure in those countries.



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A lot of work is being undertaken by operators to look at their physical infrastructure and assessing the individual risk of each mobile mast, for example. That is the first stage almost of the processes for assessing each bit of infrastructure. Then you need to work out which ones are deemed to be at such great risk that action needs to be taken and then what that action is. From the conversations we have as a forum, this is some of the work that is happening among our members.

Q109 Kirsteen Sullivan: Has some of that best practice been shared here in the UK and taken forward? We have heard very much about the learning points from what happened last year here. Clearly there will be examples from elsewhere. I think it is incumbent on all providers not just to learn the lessons, but to look ahead and anticipate any future problems, because it seems to be that that is an element that was missing here.

Alex Mather: Yes, I think that is accurate. That element of looking ahead is obviously very important. As mentioned, the data shows that weather events are becoming increasingly extreme, particularly in terms of storms, and obviously rural and island communities that are often the worst hit and most exposed to storm weather. I do agree that bodies such as the Digital Connectivity Forum have a role in helping to share that best practice from international learnings, but then also we have had sessions where UK-based providers have shared their learnings in terms of storm recovery, recovering services post-storms and other extreme weather incidents.

Q110 Kirsteen Sullivan: You will be aware of the Ofcom guidance on network resilience. Do you think this guidance adequately addresses the issues in network resilience?

Alex Mather: Yes, that is a great question. Obviously it was only recently updated, I think in September 2024. Its strengths in particular are in providing a flexible, outcomes-based framework and setting clear expectations on providers in terms of avoiding single points of failure, as we discussed, as well as some of those elements around operational processes and power resilience, which are appropriate and important. It also applies proportionately across all providers, which is important, and it probably has driven real-world improvements.

I think there was a report published in December last year as part of Ofcom's regular reporting to Government in terms of security. That confirmed some of the improvements that have been made in terms of industry behaviour and procedures. Having said that, Ofcom has stated in its recent work plan that it is continuing to look at whether the guidance is appropriate and suitable, specifically some of the points around power backup to mobile sites, which is some of the information that it is exploring, which sites in particular have mobile backup.

Ofcom took a decision around February 2025, I believe, that it would not be proportionate to apply a blanket requirement around power resilience to mobile sites due to the costs of that. I think it was estimated at about



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£1 billion to £2 billion to get to four-hour power backup across all mobile sites across the UK. Ofcom has said that it is going to continue to look at that. The work plan that was published a few days ago included work to further assess that, so it is something that is being looked at. It is good in its current form, but that does not mean that it should not be looked at and potentially revised and updated.

Q111 Kirsteen Sullivan: You said that the guidance has driven real-world improvements. It seems to me, from what I have heard this morning and in other sessions, that what has driven some improvement, particularly in terms of resilience, is the fallout from the damage to subsea cables and the failures in the resilience from some providers. Would you agree?

Alex Mather: There will always be lessons learned from specific incidents and failures. I think that is particularly the case on the subsea cable side, which obviously is very important for island communities. Resilience is an incredibly broad topic, as these sessions are exploring. I think subsea cables feels almost a bit earlier in that process of making some of the learnings and learning the lessons from recent incidents.

Q112 Kirsteen Sullivan: To what extent do you believe that providers are adhering to the guidance? It seems quite retrospective at the moment.

Alex Mather: There are specific regulatory requirements that all providers comply with. If they do not, they are subject to considerable fines from Ofcom. A lot of those requirements relate to accessibility of emergency services. From what I understand, yes, providers are complying with the guidance, but the guidance provides a fair amount of flexibility in terms of how they do so. It does suggest potential technological approaches, which will help them hit their legal obligations under Ofcom's general conditions, the Telecommunications (Security) Act and other legislation as well.

Q113 Kirsteen Sullivan: What barriers do you think exist to prevent companies from fully complying? It is my belief, from what we have heard earlier, that there has not been full compliance and that is what caused some of the issues.

Alex Mather: In terms of some of the practical barriers in specific locations and rural and remote communities, we have heard some of the challenges around restoration of service when there is an ongoing extreme weather event. In the incident with subsea cables, if it is a protracted season of storms and other adverse weather conditions, the safety of engineers who are tasked with repairing infrastructure is obviously of fundamental importance and can be a limiting factor.

Some of the aspects of improving resilience are interlinked with the rollout of advanced and some improved services. Some of the barriers may relate to those barriers in terms of deployment of digital infrastructure, which can be quite varied in their form. That can be things like planning restrictions, which restrict being able to install new infrastructure or upgrade existing infrastructure, including—I am sure



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Openreach has probably made this point to the Committee—for example, in Scotland there are some specific issues around challenges installing new telegraph poles on private land. Some of those barriers to new physical infrastructure deployment can result in challenges to improving resilience as well.

Q114 Kirsteen Sullivan: What actions do you think are needed to overcome many of these challenges?

Alex Mather: It is important that Government and Ofcom continue to review their resilience guidance, as Ofcom is committed to in its current work plan. As incidents and events happen around the world—for example, the Iberian peninsula blackouts, where large chunks of Portugal and Spain lost power for 10 hours, I think—that shows the importance of resilience of the national grid as well. There definitely should be increased dialogue between the energy sector and the digital connectivity sector. There are existing fora that do this, but I think there are further conversations that need to be had, and the Digital Connectivity Forum is facilitating those conversations. In fact, we are having a meeting next month, bringing together CEOs and C-suite representatives from telecoms industry members and representatives from the National Grid, Ofgem and the Department for Energy Security and Net Zero. We are pleased to be playing a part in those important conversations to improve resilience across the nation.

Q115 Lillian Jones: Another point that was mentioned was the legal obligations. I would be interested to know if any communications companies were fined by Ofcom for failing to fulfil their legal obligations to their customers following the outage periods.

Alex Mather: In terms of the subsea cable incident?

Lillian Jones: Yes.

Alex Mather: I am afraid I don't know off the top of my head, but I am happy to come back to the Committee on that. Providers do get fined for failing to fulfil obligations in terms of 999 access, and Ofcom publishes regular lists and updates in terms of its ongoing investigations.

Q116 Lillian Jones: Can you give me some examples of what a fine might look like for a communications company in an instance such as the outage from the subsea cable failures?

Alex Mather: Again, I do not have the figures off the top of my head, but they tend to scale in terms of the numbers of users impacted, the duration of an outage, and—although I am not 100% certain, and often it is the case with fines—it can be proportions of turnover and things like that, so sometimes they scale in terms of the size of the operator that had committed the failure.

Q117 Susan Murray: You have mentioned that the power backup to mobile sites is in Ofcom's field of vision at the moment. It is considering whether



it needs to further assess a requirement for sites to be backed up for four hours. Is that currently part of Ofcom's guidance, that they do have to have this four-hour power backup?

Alex Mather: From what I understand, that is what is deemed to be ideal in terms of power backup. I think the logic behind that is that the majority of power outages are three hours or less in duration. In terms of Ofcom's recent work, a four-hour mobile power backup is not a strict requirement. A mobile radio access network power resilience report that it published back in February last year found that about 20% of UK mast sites have power backup for at least one hour. That enables about two-thirds of the population to make emergency calls during short outages. It is worth factoring in that when you make 999 and emergency access calls, there is some intelligent roaming, so you are not restricted only to the mobile operator that you subscribe to.

Q118 **Susan Murray:** Do you feel that using median values for the UK is appropriate when deciding how long battery backup should be, because of the need to provide an equal service to the islands and remote and rural areas?

Alex Mather: Yes, I think that is a very good point. Perhaps further work should be done on whether tailored approaches need to be taken for remote and rural communities, specifically island communities. I think that was a point that the previous panellists made as well. When making regulatory requirements, they are often made at a blanket level, but that will always have restrictions.

Sometimes there are targets set in terms of percentage of population having resilience at a certain level. To your point, that can risk leaving out island and remote communities, as they are in some ways the most difficult to reach in terms of the number of sites, for example, mobile sites that are required to cover a smaller population. Yes, there is definitely a scope for looking at tailored approaches that are specific to certain geographies and communities.

Q119 **Susan Murray:** It would also be interesting to hear your view of how the progress of R100 is going.

Alex Mather: I think R100 is making excellent progress, specifically in work that has been done in terms of laying subsea cables, which is obviously highly important. I think that 16 subsea cables were laid in 2022 as part of R100. Its work is incredibly important. Similarly Project Gigabit is rolling out full fibre across Scotland, and a lot of that delivery is in partnership with Openreach. That has been successful, but is very much ongoing and continuing at pace. Over 100,000 premises will benefit from that full-fibre rollout.

Turning more broadly to progress and success with upgrading the UK's digital networks, there has been an incredibly rapid development of full fibre and rolling out and so on across the UK. It is hard to keep up with the latest stats because it is always going out quite quickly, but in terms



of latest stats across the UK, 87% have access to a gigabit-capable network; 78% specifically for full fibre. That full-fibre figure was just 6% in 2018, so you can see how the interventions made by Government and Ofcom have stimulated that market. Specifically in Scotland, I understand that 81% have access to gigabit connectivity and that stands at 71% of premises having access to full fibre.

What is interesting—I do not have the stats in terms of adoption—is that in rural and remote communities, the adoption rates are often particularly high. That is because of the challenges and obviously the importance and the necessity of excellent connectivity in those areas.

Q120 Mr Angus MacDonald: That all sounds very nice, but I am going to give you the alternative view, and I saw you there when I asked question 1. Can I give you the example of a fictitious family who live between Portree and Staffin? Hundreds of people live in the north of Skye. When the fibre was connected, it was connected from Portree to Staffin, but it didn't put connections along the line. If you work for the Highland Council and your husband works for Scottish Water and you have two children, they cannot function. They are not getting broadband full stop, of any speed at all.

Early on in our inquiry, we heard these fantastic figures, about 81% in Scotland and 87% across the UK. The percentage we got in Skye was extraordinary; the north end was about 5%. This area is coming to a stage where we have to say we will accept the emptying of the rural Highlands because it costs 30% more to live there. It is not viable for Highland Council to fix the roads because it has several thousand roads, and our connectivity is diabolical. EE has a mobile phone mast on that road for its emergency services that I do not believe is shared with the other network providers. It is catastrophic.

People in remote Scotland just don't think they are important enough. We are getting it when we travel around the world and we are seeing how good it is. It is shaming, to be honest. If you are the link between everybody, I can encourage you to go up there and just experience it. We are looking at these stats and saying, "Yes, you are doing a great job for people in the south of England," but go up there and try it, please. I will come with you. I will drive you around, give you a red carpet treatment.

Alex Mather: That is an incredibly kind offer. In seriousness though, I have travelled around many of the islands of Scotland—Isle of Lewis, Isle of Skye, Isle of Bute—and seen at first hand some of the challenges affecting those communities, including the depopulation. I am personally incredibly supportive of efforts to improve connectivity across those communities. I do fully agree that there is a lot of emphasis placed on the headline nationwide statistics, but what is probably more helpful is to break those down into those communities that are lagging behind and that really need it.

That is where public subsidy schemes, such as R100, Project Gigabit, Shared Rural Network and the 4G infill programme are incredibly



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important to cover those areas that are not seen to be commercially viable otherwise. If business premises or residential homes are not in current network upgrade plans, there is also the voucher scheme as part of R100 that that can be applied for as well. I fully understand and agree with the disparate nature of the upgrade across the UK. Work is definitely underway, and it is very important to make sure those rural communities are covered.

Q121 Mr Angus MacDonald: Who do my constituents get in touch with to find out what they can do to get decent connectivity? I am obviously not important enough to get decent connectivity. I honestly mean that. We do not have superfast broadband at home. We do not have 4G or 5G, and nobody will take my calls or direct me. What happens if you are a member of the public?

Alex Mather: Yes, this is a good question. Perhaps an area that also needs to be looked at is the universal service obligation, which currently stands at 10 megabits per second. I think the threshold has been hit in terms of rollout and uptake for that to be reviewed. That is something that I think Government and Ofcom are doing. I do not think 10 megabits per second is thought to be suitable any longer. If people live in an area where they don't have access to 10 megabit per second speeds, they can trigger a formal process in terms of requesting a connection and requesting those solutions are provided.

It is a process I have followed myself in central London in a block of flats, where I did not have access to 10 megabit per second speed. Shortly after, the building was then covered with full fibre. It is definitely a frustration that I understand and share. The broadband USO process needs to be looked at, but there is also the issue of getting in touch with the infrastructure players. It is often possible to check online whether your specific premise is in there, build plans, and that is a step you can take as well.

Q122 Mr Angus MacDonald: Who do we get in touch with? You just told me what you did about your flat.

Alex Mather: I am trying to remember. I think I got in touch with the USO provider, which was with BT, but there is guidance on the Ofcom website as well. In terms of some of the public subsidy schemes, there is information available on R100 and the voucher scheme as well.

Q123 Mr Angus MacDonald: Is R100 run by the Scottish Government?

Alex Mather: Yes.

Q124 Chair: Mr Mather, we have heard that the 2G services are going to be sunsetted going forward. For areas that do not yet have 4G or 5G, will this be a big problem? Are there particular services that will be lost to them?



Alex Mather: Digital Connectivity Forum published a report looking at the sunsetting of the 2G network, specifically looking at the international comparisons, so looking at how other countries around the world have gone about this switch-off. One of the challenges flagged by this independent report was around areas that do not yet have 4G or 5G coverage and are losing their 2G connectivity.

On Monday, I guess quite hot off the press, a charter was signed between the Government and major telecoms operators regarding the 2G switch-off. The signatories have made various commitments, which they will follow as part of the 2G switch-off process. One of them, very importantly, is to verify that 4G or 5G has been provided in those areas before 2G is switched off. As we have heard, including from VodafoneThree, with its £11 billion investment in getting enhanced 5G to 99% of the population, those charter commitments, combined with the investment that is being made across the mobile industry, I am confident that we will have 4G and 5G coverage in place before 2G is switched off in any specific geographies.

Q125 **Elaine Stewart:** We know from the impact of Storm Amy in Tír na nÓg that telecoms systems suffered critical failure. Residents often don't know who to turn to for support. What do you think can be done for greater clarity for residents in the aftermath of failure of such critical systems?

Alex Mather: It is important that communications providers have robust customer service support mechanisms in place. Again, as referenced earlier, there are lots of regulatory requirements in terms of consumer protections, including the information provided to consumers when they sign up, but also as their contract draws to an end as well. In terms of extreme circumstances and outages such as that, it is definitely an area that should be looked at in terms of what other support is provided in addition to that directly from communications providers.

I think that is one of the learnings and lessons to be learned from the Iberian peninsula blackout, because that was a power outage, but obviously that meant that about 60% of people impacted did not have mobile connectivity. There is obviously work that needs to be done across Government and with impacted sectors on the wider processes that users should follow and the services they are able to access in event of such incidents.

Q126 **Elaine Stewart:** Are there any examples of best practice of implementing emergency plans in such cases?

Alex Mather: I am less aware of the wide-ranging approaches in terms of national incidents that are broader than just telecoms. I know that various European nations did revise and review their telecoms power backup approaches in light of the Iberian Peninsula blackout. There is definitely work to look at there. Indeed, it sounds like a potential topic for the Digital Connectivity Forum in terms of future work.



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Q127 Lillian Jones: Just as a general comment, we have seen in the media how well Faroe Islands do this: 5G connectivity 150 metres below sea level and subsea tunnels. It must be frustrating for islanders in rural communities here in the UK that they cannot get that connectivity because of climate events, storms, heat or whatever. To what extent are Ofcom and communication providers recognising that remote islands and rural communities face a far greater consequence from connectivity failures than those of us who live in the mainland?

Alex Mather: That is an excellent question. I would have to double-check and write back to the Committee, but I don't think in terms of the resilience guidance there are specific outcomes that are set out for rural and remote communities. Providers do divert resources accordingly to areas most in need, so certain sites may have fuel power generators onsite and so on. There is work to be done in terms of whether the telecom sector is able to access fuel and have priority access to fuel in the event of incidents and outages as well. In terms of your specific question about Ofcom guidance and whether that is different for rural and remote communities, I do not currently believe that it is, but I think that sounds like a sensible topic that should be explored.

Q128 Lillian Jones: When you are exploring that topic, would you involve the communities in that resilience plan and guidance, rather than it just being a UK-wide issue?

Alex Mather: Yes, I think community engagement is incredibly important in these areas. Indeed, while we have focused probably on the largest providers, which obviously are responsible for the majority of the rollout, it is quite interesting to hear from rural-specific operators and how they go about engaging with their local communities and some of the specific methods they adopt in terms of rolling out connectivity in a resilient way. The nationwide scale players do engage heavily with local communities when they are rolling out as well as part of planning processes and things like that. They do engage a lot with local authorities as well. I think there is definitely work to be done.

Indeed, it is an area we have looked at, as the Digital Connectivity Forum, in terms of the role of local authorities in both assisting and helping to remove barriers to rollout, which can help with the resilience side as well. We have also looked at assisting local communities in terms of making the most of connectivity once it is in place.

Q129 Lillian Jones: Would you agree that there is a greater role for Ofcom to play in order to ensure rural communities are adequately considered?

Alex Mather: I think there is definitely further work that can be undertaken to look at some of the specific challenges affecting rural and remote communities and whether slightly more creative approaches are required.

Chair: Thank you very much for your evidence this morning. It has been very helpful to us and I am sure it will be reflected in our report, which



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we will eventually produce. Thank you again for your time this morning.

Alex Mather: Thank you very much for having me.