HOUSE OF COMMONS

Transport Committee

Oral evidence: The roll-out and safety of smart motorways, HC 26

Wednesday 30 June 2021

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Watch the meeting

Members present: Huw Merriman (Chair); Mr Ben Bradshaw; Simon Jupp; Karl McCartney; Grahame Morris; Greg Smith.

Questions 215–351

Witnesses

I: Baroness Vere of Norbiton, Minister for Roads, Buses and Places, Department for Transport; Jill Adam, Director for Strategic Roads, Economics and Statistics, Department for Transport; Nick Harris, Acting Chief Executive, Highways England; and Mike Wilson, Chief Highways Engineer, Highways England.

Written evidence from witnesses:

- Department for Transport
- Highways England

Examination of witnesses

Witnesses: Baroness Vere of Norbiton, Jill Adam, Nick Harris and Mike Wilson.

Q215 **Chair:** This is the Transport Select Committee's evidence session on smart motorways, our final evidence session for this inquiry. For the record, can I ask the witnesses to introduce themselves? We will start in the room with the Minister.

Baroness Vere: I am Baroness Vere, the Minister for Roads, Buses and Places.

Nick Harris: I am Nick Harris, the acting CEO of Highways England.

Q216 **Chair:** We also have two witnesses on the screen.

Jill Adam: Good morning. My name is Jill Adam. I am the director for strategic roads, economics and statistics at the Department for Transport.

Mike Wilson: My name is Mike Wilson. I am the chief highways engineer at Highways England.

Q217 **Chair:** Before I go into detailed questions, can I get on the record for all four of you your involvement in smart motorways? Have you inherited it or have you been working on it over the last five years or so?

Baroness Vere: I can only say that I inherited it. I became roads Minister in July 2019, at the same time as the Secretary of State took up his current role. Obviously, the Secretary of State and I have been very focused on smart motorways since then.

Nick Harris: I became acting CEO in February this year, but I have been with Highways England for nearly five years. I was the executive director of operations, and as such I have been responsible for the operation of smart motorways in that time.

Q218 **Chair:** We will put you down as legacy, on that basis. Ms Adam, how would you describe yourself? Inherited or legacy?

Jill Adam: I have been in post since July 2016, and have been dealing with smart motorways as well as other Highways England issues since then.

Mike Wilson: I have been involved with smart motorways since around 2010. I have been involved with smart motorways for a considerable period.

Q219 **Chair:** Thank you. Minister, I will start with you on the inherited side of things. In January, the Secretary of State also told us that he had inherited smart motorways, and that he would have approached the roll-out differently. Where do you and the Secretary of State think that mistakes have been made?

Baroness Vere: I do not think it is necessarily a question of mistakes being made. I think that we have to go back. Transport infrastructure is always a multi-year game, sometimes a multi-decade game. What the Secretary of State and I had to do was to look at the decisions that had previously been taken. Obviously, we could not change that. What we did was to come in and decide that it was time to get a real grip of this; to understand the safety data in a proper, holistic way; and then to look at the level of safety on the different types of motorways—smart and conventional—and put in place additional safety enhancements where we felt they were needed. That is what we did.

Obviously, looking back over the decisions that have been taken and the changes that have been made, it is the case that the policy continues and that we will roll out all-lane running motorways as set out in the RIS 2 delivery plan.

Q220 **Chair:** Back in 2016, the then Transport Select Committee, of which I was a member, as was Mr McCartney, raised and posed a series of safety concerns that we felt should be addressed before all-lane running was rolled out. Highways England gave us assurances back in 2016, for example, that they would retrofit stopped vehicle detection technology and put it in going forward. That did not occur.

What has your feeling been, as you look back at the performance, about promises made and what was actually delivered? How do you think that could have happened in the Department for Transport?

Baroness Vere: Looking back to the 26 recommendations that the TSC made in 2016, we feel that we are making progress on them. If there is something where there was potentially a misunderstanding, or where clarity was not achieved, it was on stopped vehicle detection roll-out. I feel that there was potentially a missed opportunity to explain the timeline for the roll-out of stopped vehicle detection. I think that would probably be the biggest issue, but it should be said that all-lane running motorways were designed to—and do—operate safely without it.

While we are absolutely proceeding at pace, and the Secretary of State and I have accelerated the roll-out of SVD, that is probably one area where there was potentially a lack of clear communication, which potentially resulted in a lack of trust. Of course, we regret that and we have done everything we can to speed up SVD now and get it out on to the system to make it even safer.

Q221 **Chair:** Some of the matters that you feel need to be addressed, and there has been agreement that they will be addressed, were matters that the Select Committee had pointed out in 2016 as well. Indeed, we felt that we had been given assurances by Highways England. What estimate have you made as to the human cost of those decisions?

Baroness Vere: We have not made an estimate as to the human cost of those decisions because, as I said, I do not necessarily feel that there were decisions that we fundamentally took to not go ahead with the

recommendations of the Committee. What we did, when the Secretary of State and I came in, was to look back at that Committee report. We looked at all sorts of evidence. We looked at it in a holistic way, and we have tried to take things forward as quickly as possible.

Q222 **Chair:** You have not accepted the categorisation "mistakes". You have talked about measures that need to be put in place, so I will put it this way. Rather than why did these mistakes occur, why did these matters not get addressed at the time? Who was responsible? To what extent does the Department for Transport put that responsibility, if indeed there is some, on to Highways England?

Baroness Vere: Can you be more specific as to which things you are talking about? Of the 26 recommendations, which ones do you think were overlooked? Perhaps then I will be able to direct my answer more clearly.

Q223 **Chair:** Let's home in on the stopped vehicle detection technology. That is a good one to look at because the Committee made a recommendation. I would also say that the Committee was given an assurance back in 2016. The Department appeared to agree with that because there was a requirement to put that in place. Indeed, I think you maintain that it has been put in place a year early. Who is responsible for that not taking place?

Baroness Vere: Again, I would say that the assurances that were given at the time did not have a time commitment attached to them. If you look through what has happened since the 2016 TSC report was issued, obviously there was the installation and trial period. Without that, you cannot put a system like this in place; it is actually very complicated and needs a lot of calibration. There was a two-year period over which it was trialled on the M25. Then it became policy in May 2018 that it would go on all new smart motorways, and roll-out continued at that point. When I started discussing this back in July 2019, or probably slightly thereafter, it was very clear that we felt that we needed to work with the supply chain on ensuring that there was sufficient SVD available and then to roll it out as quickly as possible.

You will recall, back in 2020 when we were promoting the action plan, that it took a little time because there were a lot of discussions between us and Highways England to make sure that we were getting the fastest possible roll-out that we could. Again, one year later, there were more discussions with the supply chain and more learning from the existing roll-out. Then we were able to bring it forward. As you said, we have now brought it forward by six months.

Q224 **Chair:** In a way, I agree with you. It takes some doing to get the technology in place, for all the logistical reasons that you explain. The difficulty with that answer is that we were told back in 2016 that, going forward, it would all be fitted. We did not have the very technical and detailed answer that you have just given. Indeed, we were told that it would be retrofitted.

Baroness Vere: It is being retrofitted. This is transport infrastructure—

Q225 **Chair:** But we are now in 2021, as you are aware, and we were told that in 2016. It is surely fair to say—I hope you would agree because you have inherited this and clearly done a lot of work—that mistakes must have been made. It must have been a mistake for someone from Highways England to tell us back in 2016 what I have just put to you.

Baroness Vere: I cannot comment on what happened between 2016 to 2019 because I was not part of the system and therefore was not having the conversations on SVD and whether it should be rolled out. I would point out that the current safety data is on the basis of most of the system not having SVD. That is just something that is a fact.

In terms of what commitments were made to the TSC, I would have to see if Nick has anything further on that. Prior to 2019, clearly an understanding was reached between DFT and Highways England as to how fast the roll-out would be. When the Secretary of State and I came in, we were not happy with that. We pushed it harder. That is exactly what we have done.

Q226 **Chair:** Indeed. While I absolutely acknowledge that you were not responsible because you were not there at the time, the Department for Transport was responsible because it had a requirement to manage Highways England, and Highways England were giving assurances and making promises to this Committee that were not being delivered. Ultimately, Highways England is held to account by Ministers in the Department. Even if you were not personally responsible, do you not believe that the Department is ultimately responsible for those assurances not being delivered?

Baroness Vere: Again, I do not know the detail of those assurances. I do not know what date you took away from those conversations as to when you felt SVD was going to go in. I can reassure you—

Q227 **Chair:** It was 2016. We were given that assurance by Highways England.

Baroness Vere: But it could not possibly technically have happened in one year.

Q228 **Chair:** You and I are agreeing completely, but my ultimate point is, doesn't this show a complete level of incompetence and failure to properly account to this Committee? I do not know if other witnesses want to comment on it. I do not disagree with you that it would not have been possible. My issue is, how on earth could it have been given as an assurance, and who is ultimately responsible for that assurance and therefore failure?

Nick Harris: Chair, I am sure my colleague Mr Wilson can add a bit more detail. I have looked back at the 2016 and 2018 visits to this Committee. I would like to repeat that the safety of smart motorways and all-lane

running does not depend on stopped vehicle detection. This is something that we are adding to improve further the safety of those roads.

It is regrettable. Clearly, we were not as precise or as clear as we could have been about the timescales that were going to be involved in both developing and rolling out stopped vehicle detection. Looking back at the assurances that were given in 2016 and 2018, I think we have delivered on those. In 2016, we committed to piloting and trialling it on the M25, which we did. We committed further, in 2018, to include it in our design standards and the design of all future schemes, which we did. We have subsequently committed to the roll-out of a retrofit programme, which we are not only well on with but have accelerated. We will be completing that by September next year. Mike may be able to add to that.

Q229 **Chair:** Before he does, Mr Harris, it is not just me who feels that I did not quite get the assurances back in time. Mike Penning, the roads Minister, maintains that he signed off on the concept of smart motorways based on, I think, the M62 design, and therefore the spacing of the bays was very much on that basis and not with as much distance as is now in place. What do you have to say about his recollection?

Nick Harris: Sorry Chair, is this about the SVD or the spacing?

Q230 **Chair:** The spacing of the bays for breakdowns.

Nick Harris: I am not aware that there was a condition put on the roll-out for the M62. We have constantly looked at the spacing of emergency areas or places of relative safety on smart motorways. We have, over that period, developed a new design standard—GD 301—where, for new schemes that are in design, we have changed the spacing, so it is now a maximum of one mile and ideally three quarters of a mile.

That has largely been because we are listening to feedback from drivers and their feelings about safety. When we look at the data on performance of different spacings of places of relative safety on the roads, there isn't a very strong correlation between the safety performance of the roads and the spacing of the emergency areas or places of relative safety.

Q231 **Chair:** Mr Harris, we are going to go into that detail. The issue is the roll-out and the decision making. He maintains that he signed off on that concept, on the basis that it would be something very different. Is he wrong?

Nick Harris: Looking at the transcript, I do not see that.

Q232 **Chair:** This is a ministerial decision, not the Select Committee. Baroness Vere, is he wrong? It is a simple question.

Baroness Vere: Let's have a tiny look back. I really did not want to go through all of this, but I think it is worth establishing where we are with all of this.

At the end of the last Labour Government, in 2009, they announced £6 billion of managed motorways. I agree that that is a much better name than smart motorways but let's leave that there. They would spend £6 billion on 25 dynamic hard shoulder motorways, covering 500 miles. That is far more, obviously, than we have now, or indeed are planning to have in the future, but that was back in 2009.

Then we had the coalition Government. There was a shift to managed motorways 2, as they were called. This was when the all-lane running concept was put before Ministers. At that stage, the Secretary of State was Philip Hammond and the roads Minister was Mike Penning. That was the concept that was put to them then. It was not a dynamic hard shoulder concept. It was managed motorways 2.

It was then decided that would be the concept taken forward. Again, that was reiterated at one and a half mile EA spacing in October/November 2011. What happened in 2013—Stephen Hammond was the roads Minister—was that it was reiterated.

What I am trying to say is that there was a shift to all-lane running motorways at the start of the coalition Government. Since that time, and potentially we will go into this in a minute, there have been numerous opportunities for public consultation on that policy. It is the case, to my mind, as somebody coming in as roads Minister in 2019, that it is an established policy and it has been consulted on, and indeed continues to be consulted on and widely commented on. These are possibly the most scrutinised roads in the world. I welcome that scrutiny, but I welcome evidence to support that scrutiny. I am slightly concerned that the debate has been based on opinion and self-selecting surveys. There is more we can do with that, but I want to set out the groundwork going back over a number of years.

Q233 **Chair:** Just to recap, you believe that every ministerial decision has been made with the correct information having been put to the Minister by Highways England?

Baroness Vere: I have no evidence that that is not the case.

Chair: It is good of you to clarify.

Mr Bradshaw: May I quote Mike Penning to you, Minister? He said last year that he was misled. He signed off a model that was based on the M42, I think.

Chair: Yes, not the M62.

Mr Bradshaw: Are you saying that he was not misled, Minister?

Baroness Vere: Obviously, I have not seen the paperwork that Mike Penning had. Mike Penning obviously came in at the start of the coalition Government. The concept that was put in front of him was not identical to the M42. It was not a dynamic hard shoulder. It was a very different concept. It was called managed motorways. It was a whole different

concept. I don't know—he said, she said: we are going back 10 years. I am quite clear as to what was decided by the Secretary of State. Obviously, Mike Penning was the roads Minister, but the Secretary of State would have had the information. Managed motorways became managed motorways 2, and that was then taken forward, which is what we have now.

Mr Bradshaw: Thanks.

Chair: You said there are lots of opinions, Minister, and you are absolutely right. We have heard a lot of them. We also heard some brilliant testimony from those involved in road safety, road design and on the engineering side. We all absolutely appreciate that there are two very different arguments that can be made. We are always interested in the data, the details and the evidence.

We are going to move to the next section. It rather continues the theme. We will ask about checks and balances between the Department and the agency. I ask Simon Jupp to join us to do that.

Q234 **Simon Jupp:** Thank you, Chair. Good morning to the panel. Thank you very much for appearing in front of us. This first question is to Jill Adam, if I may.

Did you, and do you, feel you have a sufficiently tight grip on Highways England and the work they were doing to improve the safety of smart motorways before the stocktake was commissioned last March?

Jill Adam: Yes. The Department has very regular conversations with Highways England. We set the roads investment strategy, which includes performance indicators against which Highways England's performance is tracked. That is reported on by ORR as the independent monitor.

We have a formal structure of governance and regular review meetings between Ministers and senior staff at DFT and Highways England, where progress across the portfolio and across performance issues is discussed. We also look to the board of Highways England to hold the organisation to account. I think we have good structures in place. I have certainly been party to a number of conversations about progress on smart motorways during my time in post.

Q235 **Simon Jupp:** Given the last discussion between the Chair and the Minister, do you think that process, that involvement or scrutiny, needs to be strengthened further?

Jill Adam: We now have the benefit of the stocktake and the action plan. We have strengthened the monitoring arrangements for that, in that we have asked ORR specifically to report on Highways England's progress on delivering the actions in the stocktake and action plan. We are getting regular reports from the independent monitor as to Highways England's progress.

As you will be aware, the Secretary of State has also asked ORR to do some assurance on the way in which we have used safety data to draw conclusions about smart motorways. I think there is a reasonable amount of oversight and a good measure of independence in the system.

Q236 **Simon Jupp:** What about the monitoring of delivery of commitments? You can look at an action plan and draw up an action plan, and everything else like that, but the most important thing is the implementation of that plan. Are you confident that there is enough strength and grip there, and enough not working in silos, to get done the stuff that has been promised? Some of the things that were discussed in the last panel have been discussed for many years—five years.

Jill Adam: Highways England has delivered the commitments in the 2020 stocktake on time to date. As I say, we have asked ORR as the independent monitor to track the delivery of those commitments going forward, to report regularly to the Department and to the Secretary of State on Highways England's progress. I think that there are strong controls in place.

Q237 **Simon Jupp:** Thank you; much appreciated. Minister, is there anything you would like to add on this point? Do you feel there is sufficient grip on Highways England and the work they do in this area?

Baroness Vere: Yes, I do. My life over the last 15 or 16 months has been dominated by the pandemic and smart motorways. I see Nick every three to four weeks, although this is the first time I have met him in person, which is very exciting. Every single time we speak, we talk about smart motorways. We talk about the action plan. It is part of the standing papers for our discussions.

Yes, we have good oversight of Highways England. I obviously speak to the chair regularly too, to make sure that he is as concerned as I am that we get this action plan done.

Q238 **Simon Jupp:** Are you confident, with these discussions that you are having, that actions are taken forward from there, that things are put in place, that the action plan is continuing to work apace and that the scrutiny is strong enough to sustain the amount of changes that may need to occur in the coming years?

Baroness Vere: I do think that. We are always looking for ways to improve. If there is one thing I know about my Secretary of State, it is that he is never happy with the status quo. He is always looking to make things better.

I must also reiterate, because it sounds as if we feel there is a crisis of confidence in the safety of smart motorways and I absolutely dispute that, that we know that smart motorways tend to be as safe or safer than the conventional ones. If you flip that over, that means that conventional ones are as safe or less safe than smart motorways. We tend to focus on the former. We do not think as much about the latter.

I think that we have to be really careful in our framing. We are always open to looking at evidence. As Jill said, we are looking to the ORR to help us support that evidence, but we have to be driven by the evidence. It is so important. In road safety, it is an absolutely critical factor in what we do.

Q239 **Simon Jupp:** I agree. It is really important to have the evidence. May I suggest that terminology is important? If you have a sign, "This road tends to be as safe as a normal road," it would pretty much put off most traffic from travelling down it. But that is another point.

How has Highways England's performance and the way it is managed and regulated, in your view, affected the design and roll-out of smart motorways?

Baroness Vere: You probably need to put that in the context of all its road enhancement plans. Again, since taking over in 2019, I have been impressed with the way Highways England manages its programme. It is a huge programme. We spend £27 billion in total, not just on enhancements; let's be clear about that. It is the case that Highways England has a grip on the entire programme. Smart motorways is just part of that. It has set up new ways of working to build smart motorways. For example, there is the smart motorway alliance, which is groups of contractors that actually build these things. The key thing about that is that you get them built on time and on budget.

In general, I feel so far that the performance has been good. When I meet Nick and his team every few weeks, we look through the performance of the different schemes to make sure that they are on track. That is what we do.

Q240 **Simon Jupp:** I have a limited amount of time this morning. I would love to drill into that answer some more, but I want to put a statement to you. Highways England's barrister told an inquest earlier this year that the company has "no duty of care to motorists."

In my view, to be clear, that is frankly a ludicrous and indefensible statement. Are you concerned that the company responsible for our motorways does not have a formal duty of care to the motorists who use them?

Baroness Vere: Let's just have a little think about that. Road safety is dependent on three things: roads, vehicles and the drivers themselves. It is what we call a safe system of road safety, and that is what we do.

Of course, Highways England has a laser-like focus on safety. One of its key KPIs is safety. When we are talking about a legal duty of care, it is a legal term. It is not what you or I would think of as a duty of care, such as, "I care about that thing and I want to make it better." A legal duty of care is something separate. That is why I cannot comment on that. There is an ongoing legal action, as you have just pointed out, Mr Jupp. That is

why the QC made that comment, but it is a legalistic term rather than an operational term as to how Highways England actually does its job.

The number one KPI I get in a roads Minister report is safety. It is not only keeping the drivers safe. It is also about keeping the workforce safe who are working on the roads.

Q241 **Chair:** From a legal perspective, that would mean a responsibility.

Baroness Vere: That is my understanding of what it is.

Q242 **Chair:** But that barrister seemed to be saying that Highways England does not have the responsibility. I think that is where Simon is going.

Baroness Vere: I think perhaps we need to wait for the legal stuff to happen first. I would not want to do anything to prejudice that. I will point out that it is a very legal term. I cannot say any more.

Q243 **Chair:** It will be for the judgment to decide whether it indeed does or does not—

Baroness Vere: Yes, what does "duty of care" mean in law, rather than the care that you feel because it is in your KPIs and you do it every day?

Chair: Sorry, Simon.

Q244 **Simon Jupp:** No worries, Chair. I will move on. New infrastructure on the railway needs Office of Rail and Road approval before it is put into service. Should that be the same for motorways, going forward, Minister?

Baroness Vere: There is a hugely different role that the ORR plays for rail than it does for road. Of course, the rail system is entirely different. Network Rail operates and manages most of the rail. You do not have individual citizen drivers of trains, so you take out the element of driver safety. You have to remember that Highways England is responsible for only 3% of the country's roads. They are slightly chalk and cheese.

However, what I accept is that we can ask the ORR, and we have asked the ORR, to play a role in Highways England. It already does. It is very good at checking and reassuring us on the financial efficiencies that Highways England is able to take, and on the KPIs. Most recently, we have asked for reassurance—not even reassurance, but recommendations on the evidence that we currently collect and how we can make that evidence more robust in the future. I think the ORR definitely has a role, but I am not sure that aligning it to the role that the rail sector has for the ORR is necessarily right.

This is slightly off topic, but I am going to go there. Do I feel that on road safety in general there is a role for something? I am already starting work on road safety in general. It is not just smart motorways; it is not just motorways; it is all roads. How do we focus more on the safety of all roads, and how do you then have oversight of that? I think that is potentially missing, but that is not for today, unfortunately.

Q245 **Simon Jupp:** That is good to hear, Minister. Could there potentially be a strengthened or beefed-up role for the Office of Rail and Road within that decision-making framework?

Baroness Vere: I would not want to comment on whether it would be right for the ORR. I do not even have ministerial approval to do it. There is something there, and I think we need some more monitoring and oversight of our road safety interventions for cars, vehicles and drivers and not just for a specific type of road that operates in a specific type of way.

Q246 **Simon Jupp:** In the interests of time, I will ask for a very short answer, if I may. Yes or no may be sufficient. Should there have been a requirement on Highways England and the Department to formally consult on the introduction of all-lane running?

Baroness Vere: They already have. There have been consultations, many times. Let me quickly go over this before you say, "Oh no, we have run out of time." This is important, so bear with me.

We have necessarily to go back a few years. In 2014, there was a consultation on the national networks national policy statement. That ran during 2014. In that was the commitment to roll out smart motorways. The Government responded to that consultation. That particular document was debated in the Chamber. I know that Ms Greenwood actually participated in that debate. She did not raise smart motorways. She questioned the cancellation of £3.9 billion of roads investment, however. That document, the national policy statement, was accepted by the House without a vote.

Also in 2014, there was the consultation on the M4, which of course is a smart motorway; 51% supported the scheme and 17% were against. There was a roughly equal split of concerns around safety, journey times and the environment. There was a consultation on the national roll-out of emergency areas on their introduction on the M1, junction 31 to 35A. Most recently—not most recently, actually, because there are always consultations—in December 2017 specifically, there was a consultation on Highways England's strategic road network initial report. Again, that covered smart motorways. Comments about smart motorways amounted to 10% of the respondents.

We have consulted on these. We continue to consult on these. We welcome all evidence, and we keep an open mind.

Simon Jupp: Thank you, Minister.

Q247 **Chair:** I am conscious of time, but I want to come back on this. Are you concerned about the amount of resources that the Office of Rail and Road dedicates to roads, Minister?

Baroness Vere: No, not particularly.

Q248 **Chair:** I say that because, of its budget of £38.2 million only £2.9 million

goes on its highway functions. Of the 350 employees, only 19 of them work on road. It just feels like the "Office of Rail and a bit of road".

Baroness Vere: I have not found that its work has been deficient in any way. Obviously, as I have just pointed out, it has a very difficult function on roads versus rail. It is very different.

Q249 **Chair:** We are in complete agreement with that, but it feels like there is a hole in the accountability and the check and balance from the regulator when it comes to road rather than rail.

Let me give you an example. The third rail is a concept that Network Rail would like to deliver potentially more of, but the ORR has safety concerns about a new concept, even though it is an existing concept. Smart motorways you can actually see as parallel to that, yet there has been no comment at all from the ORR on their roll-out. It seems like an obvious gap.

Baroness Vere: Potentially. You may well conclude that. At the moment, it is not a deficiency by the ORR. It is not that it is tasked to do that job and it has not done it. It is that it is not tasked to do that job.

Chair: That is the thing we are interested in, but it sounds like you are looking at that as well. You alluded to the point that there may be more work to be done in that field.

We are also interested in the economic case for smart motorways. We recognise that everything has proportionality arguments, but the economic case has to be looked at as a driver as well.

Q250 **Greg Smith:** Good morning to all the witnesses. As the Chairman just said, I particularly want to delve into the economics and the benefits around smart motorways and changes to the strategic road network.

Mr Harris, we have had evidence from Highways England in the past of an expectation that makes sense on paper, but things have happened in the last couple of years. You expect growth in the number of cars on the road, and the number of trucks and light goods vehicles on the road, to significantly increase in the medium to long term. Given that Covid has happened, given that home working has become a new normal, and, nothing to do with Covid, given that there has been a rise in car-sharing and things like that to meet climate change commitments, how confident are you that we are going to see that increase?

Nick Harris: There are a number of things I would like to share with the Committee. The first is that we have seen growth of about 23% in traffic since 2000. Many of the smart motorway schemes that we have built, and are building, are to address the issue of capacity and congestion that we have at the moment. We lack capacity, and of course congestion is a very important safety concern as well. There is a range in all of these predictions, but we are looking at an increase of between a third and two thirds in journeys on the strategic road network over the next two or three decades.

On your question about whether we still feel that is a good prediction given what has happened with Covid, if we look back at the last 18 months, we saw in the very early stages of the pandemic a drop-off in traffic for the first two months. Since then, we are back, in most cases, to traffic volumes that are the same. Car journeys are around 90% of what we saw before the pandemic. Heavy and light goods journeys are higher, at between 104% and 115% of what we were seeing before. A lot of us are shopping online, which is driving a lot of that.

When we look at what might be the impact of electric vehicles and the cost of motoring in the future, I am not seeing anything that would cause us to question those projections at the moment. We use the growth assumptions that are in the national transport model.

Q251 **Greg Smith:** That is very helpful. Perhaps we can turn to the economics. There has been a presumption that of the all-lane running motorways that have been built, largely since 2015, there was expectation of a £3 return for every £1 spent on building them. How many built so far have delivered on that?

Baroness Vere: We would not know that because we need to do the POPE reports. After you finish construction, you open the road and then two key reports happen. After one year, you have a POPE report, and then after five years you have a POPE report, which is a post-opening project evaluation. It looks through all of the things from the business case and basically says, "Did it happen or not?"

We have some POPE reports coming out fairly soon. Obviously, I will write to you, Chair, with the POPE reports, which I think you will find interesting. There are two things to consider. One is that there will be variation scheme by scheme, so it is better to look on a programme basis. It is the case that from what we can see at the moment we are making good progress against the business case. The other issue is that one year is often not reliable enough to draw direct conclusions, so after five years we look at the business case again, and then we re-evaluate what the system looks like after it has been functioning for five years.

There is one thing that this whole process has made me take away, and I am going to take it back to my Department. As roads Minister, I think I need to be a bit more on top of evaluation than we probably are now. We have a big focus on business cases. Goodness, I have business cases coming out of my ears, but it is the evaluation not just of smart motorways but of all our enhancements. It is only fair on the taxpayer that from the ministerial level I need to be much more focused on whether they are actually working. If they are not working, it does not mean it was a bad scheme. Sometimes you can improve it, but there are lessons learned to be put into the system and all that sort of thing. I think we need to focus on that.

Q252 **Greg Smith:** I totally accept the point of the five-year review period. Covid has got in the way of that analysis, but there have been all-lane

running motorways open for more than five years in this country. I can think of a couple.

Nick Harris: As the Minister said, there are a number of POPE reports that have been done, or evaluations. There are nine. Of those nine, from memory, only two or maybe three are at the five-year point. We have limited data on their economic performance.

The data we have so far backs up the assumptions that were made in the business models. We need to continue to evaluate and monitor their performance, but the sorts of assumptions we made in the business plans about safety, shift of traffic from local roads to the motorways, economic benefits, journey reliability and so on are being evidenced. We need to wait for the five-year reports.

Q253 **Greg Smith:** Are those reports independent of Highways England and/or the DFT, or are they produced by Highways England?

Nick Harris: The POPE reports are produced by Highways England.

Q254 **Greg Smith:** Presumably, without pre-releasing the results, you will have a feel for right direction or wrong direction compared to the original business case. Can you share with the Committee whether you feel that the £3 for every £1 is close to reality? Is it better or worse?

Nick Harris: As the Minister said, it is important to look at this at a programme level. Some schemes deliver better. As yet, we have not realised the benefits that were put forward on some. At programme level, we are generally achieving or starting to achieve that level of benefit, or our expectation is that we are going to achieve it.

Q255 **Greg Smith:** Some other people in the field have offered some evidence on this. The RAC, for example, gave us evidence to suggest that some of the economic benefits and the congestion-busting benefits of all-lane running were not really observed beyond the first year of operation. Do you recognise the evidence that the RAC offered up to the Committee on that, and do you have any comment on it, Minister, Mr Harris or anyone on the screen? I am forgetting the people on the screen.

Nick Harris: No, we don't recognise in general the evidence that they presented. David Metz gave some evidence to the Committee. To pick up on a couple of points that he raised, he put forward that there was a one-to-one relationship of created journeys. That is not something we have observed. The evidence does not support that. In fact, there was a DFT report that demonstrated that it is at a much lower level, so we have not seen that.

We have seen a shift from local roads on to the motorways, and that was expected. I would argue that is a good thing because the smart motorways are certainly three and a half times safer than A roads, where the shift has taken place from. Of course, a lot of benefit is driven by

freight traffic. He said that we were not able to differentiate. We are. We understand the composition of traffic and the volumes.

Q256 **Greg Smith:** I am sorry, that is the error of glancing at an iPad screen. It was not the RAC; it was actually the former chief scientist at the Department who gave us the evidence about the one year.

I want to keep these questions around the non-safety benefits. Lots of colleagues are going to come in on the safety points. We surely have enough modelling to show whether traffic flows better and whether people are getting from A to B faster—of course within the limitations of Her Majesty's speed limit. Given some of the evidence that the Committee has heard, that after year one it all slows up and perhaps all-lane running attracts more vehicles, as opposed to getting the existing flow moving faster, there must be a feel within Highways England or the Department, as you have looked already and come to some early conclusion about whether the benefits are being realised.

Chair: Mr Wilson has his hand up. I don't know whether he wants to comment on that point.

Mike Wilson: No, I want to comment on an earlier point and add a bit of detail, if that is all right. Some work we have done says that smart motorways have already saved 28 million hours in lost time, with an economic value of £350 million. We estimate that the value of the all-lane running programme over the 60-year appraisal period—of course we have to appraise in accordance with Treasury guidelines—suggests that the economic return will be about £10.6 billion of the investment that we have already made.

There are numbers in terms of the benefit that is coming. I wanted to give the Committee that point, if that is all right.

Greg Smith: Thank you. Before I come on to my next question, Ms Adam wants to come in.

Jill Adam: Just to give a couple of specific examples. Studies on the M25 have shown that smart motorways have delivered an additional 11,000 journeys every day. On the M6, junctions 16 to 19, the average commute over the course of a week has reduced by 40 minutes and journey reliability has increased. As well as the global figures that Mike shared with you, we have some specific examples of where they are delivering the improvements that were set out in the business cases.

Q257 **Greg Smith:** Thank you. I want to stick with the benefits of getting people where they want to go quicker. The AA gave us some evidence that suggested that a lot of people on all-lane running will not use the inside lane for fear of crashing into something that has stopped.

When you add a lane to create more capacity, but people are reticent to use it because it is either still in their mind as a hard shoulder—that's where the hard shoulder used to be—or for fear, having thought about it a little bit, that something could be stopped in that lane, how do we get

around that? Is it purely an educational point or does there have to be something a little bit deeper to start realising the benefits?

Baroness Vere: Last week, I went to the Highways England control centre at South Mimms. It was fascinating. I recommend it to all of you.

Chair: We have been invited there.

Baroness Vere: You should go. You walk in and think that nothing is going on, until you actually sit down with one of the operators, as I did for well over an hour. They are very calm and collected, but they are dealing with things. I saw no evidence from the screens that I was watching at that time that lane one was anything other than fully used. We have no evidence that that is not the case.

I go back to the point that I made at the beginning. I am slightly concerned by the number of self-selecting surveys that are going on with quite leading questions. They are producing some fantastic numbers. I would also point out that in 2018 Highways England did some research. They strapped some heart monitors and some dashcams on to the driver and the vehicle. They sent them out into the wild on the motorway system. Heart rates were lower on smart motorways than they were on conventional motorways. The perception from the customer was that it was a more positive journey.

One of the things I may well take away from today's session, and going forward, is trying to focus more on how we empiricise the evidence that we are using. I am concerned that we are going off into the realms of, "Don't you really feel that it's terrible that"—put in anything. People will say yes. We have no evidence that lane one is suffering from a lack of use.

Q258 **Greg Smith:** I appreciate your answer. It is good that the Department has that confidence. I raised it because the AA, which is a pretty respected organisation in this country, has raised it with us.

Baroness Vere: We really appreciate working with it.

Q259 **Greg Smith:** Likewise, with the RAC—actually the RAC this time. I do not think this was a leading question-type survey from them, but I am happy to be proved wrong. They took a look at two sections of the M25. One section had been widened to four lanes and one was still in its good old-fashioned format. They have given us evidence that the all-lane running section had more incidents in the time period when they were looking at it, which led to more delays of greater than 30 minutes compared with the conventional, old-style bits of the M25.

Would it be fair to say that when an all-lane running motorway is running well, the benefits are clearly there, but the minute something goes wrong you lose those benefits very quickly because of the way multiple lanes have to be shut down very quickly, and those delays then last longer because of the nature of the intervention that has to be taken after an

incident?

Nick Harris: Again, I do not think the evidence bears that out. We collect the data on incidents in two ways. One is using the stats mapping data. The other is via our control rooms, which the Minister described. We have traffic flow and volume. We also gather data on all incidents, and we investigate all incidents.

One of our KPIs is how quickly we clear incidents. We follow that very closely. It is one of our key performance metrics. We do not find that it takes longer for us to clear incidents on smart motorways compared with other motorways, so—

Q260 **Greg Smith:** I am sorry to cut in. Would it be fair to say that on a smart motorway you take a bigger intervention because you do not have the hard shoulder? I can think of times driving along them when you wonder why two or three of the four lanes are closed for a car with a puncture in lane one.

Nick Harris: Live-lane breakdowns can happen on all roads. There are something like 50,000 live-lane breakdowns a year—

Q261 **Greg Smith:** But my point is that the intervention to make the road safe and to secure the vehicle that has stopped, for whatever reason, was actually bigger and involved more lane closures than on a conventionally designed motorway.

Nick Harris: Not necessarily. We close enough lanes to deal with the incident on any type of motorway. Our paramount focus, of course, is safety. We are focused on the safety of the recovery crews, our staff and the emergency services who may be involved. We close enough of the road to provide a safe working zone for them, regardless of the type of road. It is the size of the incident that will drive that, not the type of road.

Q262 **Greg Smith:** It would be interesting, if there is scope, to look at any data, given what the RAC found. I do not know whether the comparison of the two sections was over a day, or how long it was. Could we try to dig deeper into some of the data, to look at a three-lane plus hard shoulder bit of motorway? Let's say there is a tyre blow-out on a coach. How many lanes get shut each way round? There is some anecdotal evidence that on a smart motorway, because it is easier to throw up the Xs on the gantries, more lanes get shut, which then takes away the benefits of traffic flow.

Nick Harris: Again, I would suggest that that is anecdotal evidence. We have data on every single incident, how long it took to clear and what the impact was. I don't believe that anecdotal evidence is borne out by—

Q263 **Chair:** Can I come in? Just to be clear, this is not anecdotal evidence. This is from a freedom of information request. I am working on the basis that it is either from Highways England or the DFT for it to be a freedom

of information request. It was from 2019, looking at the M25. It showed that the live-lane carriageway on the four-lane controlled stretch of smart motorway was clear for 96%, a lot more often than the four-lane stretch of all-lane running, at 73%. That is a big gap.

We are talking about the economics, so if your economics work on the basis, as you have just said to Greg Smith, that there should not be that difference, yet the evidence says that there is, your economic case cannot be as strong as you believe it is either.

Nick Harris: I do not have in front of me the information from that FOI. Again, we analyse the data on incidents, the duration and the impact. We could provide more analysis of that for the Committee.

Baroness Vere: Shall we write to you and see if we can find some more on that?

Chair: Yes. Obviously, it being an FOI, what I am looking for is for you to say, "Actually, the RAC has taken the right information, but it has not properly crunched it."

Nick Harris: Why don't we take a look at that?

Baroness Vere: We will take that away.

Nick Harris: We can write to you on that.

Chair: Sorry, Greg.

Greg Smith: I am timed out, so I will hand back to the chairman.

Q264 **Chair:** I may have timed you out. Very briefly, for our records, on the POPE reports, I wrote a parliamentary question on the timing. You came back to me and said summer 2021. Can I press you for a date, not least because we are intending to get our report out before Parliament breaks for the summer recess?

Baroness Vere: I am hoping to get the reports to you very soon. I want to say the week after next.

Q265 **Chair:** Thank you. You do more than many Ministers when it comes to being pin-point, so I am grateful for that.

Baroness Vere: I have some reports that are coming your way. I have the POPE reports and I have the cluster reports on incidents. I hope to get them to you the week after next.

Chair: Super. Thank you very much indeed. We move on to the Government's smart motorway stocktake, and how robust the evidence is on smart motorway safety, and we are going over to Grahame Morris.

Q266 **Grahame Morris:** Thank you, Chair. Perhaps I might pick up on a couple of points that were put to the Minister by the Chair and my colleague Simon Jupp in relation to the Secretary of State commissioning the ORR to provide quality assurance on all-lane running motorways. Minister,

could you remind the Committee of what the ORR concluded?

Baroness Vere: What the Secretary of State asked the ORR to do was to provide reassurance on the data and evidence that is currently being collected. We have received its report. It was asked for by 28 June. It is in the Department. I have not seen it. Again, we hope at least to be able to provide information to the Chair and to the Committee on what it had to say. I am expecting it to come back with some recommendations—I hope it does—on, "This is what we think of the data now. This is how we think it could be improved in the future."

Q267 **Grahame Morris:** Are you in a position to tell us the date when you will publish that or can make it available so that we can consider it as part of our evidence when the Committee makes its recommendations?

Baroness Vere: I really do not have a date on that. When I have seen it, perhaps I can then make the Committee aware at that point. I literally have not seen it yet.

Q268 **Grahame Morris:** Minister, can I take up a couple of issues you raised earlier? You said how important it was that we had empirical data that was robust on which to base decisions. I might point out that the Committee has received evidence from a number of witnesses querying just how robust the data collection exercise is. They cite, for example, the failure to collect near-miss data, and the failure to collect and analyse post-collision data, which would be highly relevant for the Government's conclusions. Given that the Secretary of State decided to involve the ORR in the stocktake, the assessment, why wasn't that done originally? Could you share your thoughts with the Committee, please?

Baroness Vere: In terms of getting the ORR involved, it is all about confidence for the Department for Transport. It is about confidence for the public as to whether the data we are using is correct.

On the near-miss data, there seems to be a slight misconception as to what a near miss is. A near miss, in HE parlance, is because of the workforce really. It is anything that could have caused something to go wrong. Only 3.78% of near misses involve vehicles at all. It might involve a vehicle going through cones that should not have done and so on. The near-miss data has been spun in a certain way. It is not a near miss where two cars nearly drive into each other. It is slightly different.

If I can just focus on the point you made about post-collision information, I agree that as soon as you start going into the data, which is why we need the ORR to look at it and why we need to challenge it as well, you are relying on road safety statistics. They are collected in a certain way by the police. The police will make certain judgments at certain times. They will also then input them in a certain way. About half the police forces in the UK use a system called CRaSH, and half of them do not.

That is one of the challenges we have. The raw data that we receive, whether it is from smart motorways, A roads, B roads or whatever,

comes from a variety of systems. Therefore, it sometimes needs to be considered and seen in the context that it comes from a variety of systems. I agree that it is not as simple as you would first imagine. We are hoping that it will get better.

Q269 **Grahame Morris:** Minister, I am not suggesting it is simple. What I am suggesting is that we need a complete picture of up-to-date and robust data. It has been suggested to the Committee that other sectors, notably aviation and indeed the NHS, make better use of near-miss data, not just for academic purposes but to be able to predict potential accidents or loss of life and take the appropriate steps to avoid that.

I want to ask how up to date the data is on which you, as the Minister, and the Department are basing your findings. The one-year progress report in April included figures from 2015-19 rather than from 2016-20. Do you have the figures for 2020? If you have them, why weren't those figures used? We know that they can vary widely from year to year. Has anything changed, if you do have them and they have not been included in the progress report?

Baroness Vere: We use five-year data, obviously, to smooth out variations and to reduce the volatility in the data. The 2020 provisional fatality and other serious injury data were released on the 21st—this year. That is the first pass total provisionals. That data is then delved into and, as you say, we need to get very robust data. At the moment, 2019 is the latest we have. We will have 2020 in due course, but, yes, that is how long road safety data takes to go through the system.

Q270 **Grahame Morris:** You do not have it yet, but you will have it in due course. I am grateful to you for clarifying that.

Baroness Vere: I do not have it for any roads, let alone smart motorways.

Q271 **Grahame Morris:** Minister, the all-party group for roadside rescue and recovery has called for the roll-out of all-lane running to be halted until we have at least three years of safety data for each existing stretch of all-lane running. Do you think that is a good idea?

Baroness Vere: Again, I would go back to the evidence. On what evidence would they make that statement? We now have five years of data, particularly in terms of fatality and casualty rates. We already have that data. I do not see what they think will change in order for us to go back to doing all-lane running.

Q272 **Grahame Morris:** I am not privy to what is in their mind, but clearly they want to ensure that they have three years' clear data that indicates it is safe.

I know time is pressing, but I was intrigued by your response, when the Chair mentioned the comments of Mike Penning, the former roads Minister. He said that he thought he was misled about the roll-out of smart motorways. He said it should never have happened. He is quoted

in an article last year: "If you measure the number of deaths per mile of smart motorway, it has risen from one every 43 miles of smart motorway in 2016 to one for every 17 miles in 2019." That is a legitimate concern based on legitimate stats, unless you can put up an alternative counter-argument.

Baroness Vere: First of all, let us address the roadside recovery thing. We do have three years of data. It is clearly set out in the 2019 smart motorways all-lane running overarching safety report that was published in December. It is all very clearly set out. I think that puts our mind at rest.

We really value the work of the roadside recovery sector. I know that Highways England works very closely with them on establishing protocols on how to operate on smart motorways, and indeed on all motorways, to ensure that their workforce remain safe, and also that people can get to safety as quickly as possible.

Mr Penning used a rather unusual way of cutting the data. It is not one that really stands up to very much scrutiny because, of course, not all all-lane runnings are the same. The evidence that very clearly comes out of both the overarching safety report and more widely is that, as I have said, smart motorways are as safe or safer than the motorways that they replace.

Q273 **Grahame Morris:** Minister, I appreciate the answer. I know that Mike Wilson, who is an engineer, wants to come in, but can I share something with you? The Committee listened to some harrowing evidence from families yesterday about the nature of some of the accidents on smart motorways without hard shoulders. I have been asked not to make specific reference, but I think we should give some weight to their concerns about the particular circumstances that apply in the case of smart motorways where we do not have hard shoulders.

I know that time is short. As an engineer, Mike, would you give a comment?

Mike Wilson: Absolutely. I have two quick points. The first is that we absolutely accept that behind all of the statistics we are talking about is a human tragedy. As Mr Harris and the Minister have said, safety is of paramount importance to Highways England. We listen to those stories too. When we are making decisions, we are looking at the evidence base.

We look at a rate per mile travelled. All-lane running schemes are a third safer than conventional motorways. I, too, am slightly surprised by the statistics and the way that the data has been cut in Sir Mike Penning's comments. The evidence shows that fatal incidents are fewer on smart motorways than they are on conventional motorways.

Q274 **Grahame Morris:** Thank you. Minister, I want to ask the 64,000-dollar question. You have expressed some reservations about the need for robust empirical data, but are you confident in using the safety statistics

on smart motorways as a guide for making policy decisions about these motorways, and in particular whether to roll them out to a larger degree?

Baroness Vere: I am confident on using the data that we have available, but I did not express any reservations about having robust empirical data. I think we always need the best data. I think we can all agree that data improves over time. We get better at collecting it. We get better at analysing it. We get better at making decisions on the basis of it.

We will always keep an open mind. I am absolutely clear about that. If the evidence changes, of course we would look at that. At the moment, we have the evidence that we have. As I said earlier, these are probably the most scrutinised 141 miles of road in the world, and they will probably continue to be so, and quite rightly, because there have been public concerns.

I would like to reiterate that I, too, meet families. I hear their harrowing stories. That is not just on smart motorways. I meet families who have suffered bereavement on roads all across the country; 1,489 people die in England every year, 15 on a motorway without a permanent hard shoulder.

Grahame Morris: I am grateful to you, Minister, and your colleagues for putting that on the record.

Q275 **Chair:** Again, looking at the data, it appears that you are driven by the evidence that smart motorways are safer than conventional motorways. But is it not the case that controlled motorways, as a smart motorway concept, are safer than all-lane running smart motorways?

Baroness Vere: We have not introduced a controlled motorway for quite some time. When we introduce a controlled motorway, it is usually in the context of a road having just been widened. This goes back to Mr Smith's point about the economic case. You are looking at travel times, tax revenues, health, safety, noise, air quality and all of these things. For a controlled motorway, yes, they have this technology, but it was introduced in the context of road widening. The capacity was introduced and then the technology was put on.

As a responsible Government, if you are looking at the options between building a new road, widening or using the existing footprint, actually the business case comes out better for using the existing footprint rather than using controlled motorways. We are not intending to do much road widening unless the business case proves that it is the right thing to do.

Q276 **Chair:** We have been very keen to make sure that we explore the business rationale, the economic case. If money was no object, you could spend it all over the place, but money is the object, so I completely see the need to see where you get the best bang for the buck in that regard.

Would I be right in saying that there is an acceptance that you slightly

weaken the safety case of a smart motorway by putting all-lane running in, but you get an economic benefit by doing that?

Baroness Vere: No. How would that be?

Q277 **Chair:** As we have just discussed, if you look at a controlled motorway, and indeed a dynamic hard shoulder motorway, and you look at the comparison with all-lanes running, the all-lanes running appears to be the least safe of the smart motorways.

Baroness Vere: Ah, but hang on a second.

Q278 **Chair:** Why would you then do all-lanes running? There has to be a reason. Is the rationale the economic benefit that all-lanes running gives?

Baroness Vere: No. That is not how we look at that. We would not introduce another controlled motorway because you are usually road widening. Again, you would have to look at all of it in the round. I would slightly put that to one side.

Then your option is, do you do dynamic hard shoulder or do you do all-lane running? If the amount of congestion is likely to increase, and traffic growth is likely to increase, a dynamic hard shoulder is basically going to become an all-lane running anyway. You obviously have to open and close the hard shoulder, which is one of the challenges about it. Also, dynamic hard shoulder has a solid white line. It is counter-intuitive for drivers to drive over a solid white line. We believe that the dynamic hard shoulder is a less viable route to take forward because it causes confusion. There were 3.6 million misuses of the hard shoulder on dynamic hard shoulder motorways over a year. Either those drivers were confused—this is what we found out—or they used it to gain advantage.

Q279 **Chair:** Minister, if safety is the key, if you look at the 100 million vehicle miles, there is a 1.10 serious casualty rate for dynamic hard shoulder motorways versus 1.24 for all-lanes running. Notwithstanding what you have just said about the concerns you have for the dynamic hard shoulder, it appears to be safer, looking at your own statistics.

Baroness Vere: Can I give you a statistic back? There can be a lot of volatility, which is why we try to do five-year averages, but why do we not look at the fatal weighted average? That is an overarching measure and is standard in the transport sector; it is basically a measure of all sorts of casualties, with an index put on them. You have 0.34 for dynamic hard shoulder and 0.35 for ALR, which I would put to you is pretty much the same thing. I am concerned. I would be—

Q280 **Chair:** We have 0.36.

Baroness Vere: Oh, I have 0.34 and 0.35. Anyway, I would be concerned about rolling out dynamic hard shoulder now. In any event, they are going to need to have the hard shoulder open more frequently. The other thing is that, on a dynamic hard shoulder, the way that it is designed, and because it has this counterintuitive white line, means that

it runs at 60 mph if the hard shoulder is running as a live lane. If you are seeing a reduction in fatalities, one of the reasons might be that the whole system is running at 60 mph when it is running as a live lane.

We can have a whole other argument as to whether motorway speed limits should be 60 or 70. The reality is that the lower the speed limit, the less likely fatalities are. It is not Government policy to introduce dynamic hard shoulders, and we do not see that there is a specific safety case to do so.

Q281 **Mr Bradshaw:** A moment ago, Minister, you said that controlled motorways were safer, but then you said, "Let's put that to one side," almost dismissing it. I assume that is on cost grounds. What is your calculation of the amount of money it is worth spending to save a life?

Baroness Vere: Unfortunately, we have to be a pragmatic and rational Government. We are today, once again, talking about smart motorways. As I mentioned previously, it is 1% of fatalities. We have to make a business case. We have to look at how we spend our money. I would question the environmental impact of spending lots of money on a controlled motorway where, for the same money, I could probably save I cannot imagine how many lives, if I sorted out some of the single-track A roads. You have to make that decision.

Q282 **Mr Bradshaw:** Does the Department have a figure as to how much it would spend on a road to save a life, or on roads generally to save a life?

Baroness Vere: No. There are academics who come up with such figures, but no.

Chair: Thank you very much indeed. Let's move on to reinstating the hard shoulder, what it would entail and what the consequences would be. Back to Greg Smith.

Q283 **Greg Smith:** Minister, a few moments ago you mentioned certain surveys asking leading questions and so on. I accept that point. However, there is a disconnect, if the statements we have heard that say smart motorways are safer are correct, between them and public perception. That is not just one or two instances. In 2019, in the RAC report on motoring, 70% of drivers in England thought the removal of the hard shoulder compromised safety. In the AA's most recent survey, 56% of drivers said that smart motorways should be scrapped and the hard shoulder should be reinstated. There are campaign groups out there like Smart Motorways Kill who passionately campaign for the reinstatement of the hard shoulder everywhere.

There is a gap between public perception and the Government position and Highways England's position. How do we, given that these motorways are there and people are driving on them right now, close that gap? What will it take? I suspect that is going to be a bit more than TV advertising.

Baroness Vere: I think I would agree, in that there is a gap. We have been working very hard to close it. I will say that we probably need to work a little harder on getting advocates and presenting the evidence. It is the case, as the world changes and we switch over to more data, more digitisation and more technology, that we need to bring the public with us. Sometimes that can be very difficult.

Sadly, we are all old enough to remember when interventions on motorways were physical in terms of safety. There was a barrier. There was a hard shoulder. There was the central reservation. Nowadays, things are going to change on all roads, and that is not going to stop. Data and digitisation will become part of our lives. Eventually, our cars may be linked to the gantries, and they will set the speed limit for us.

We have to take the public with us. I absolutely accept that. We will work really hard going forward. Again, Highways England and I will both be very focused on bringing the public with us, to explain that, actually, these roads are a system of systems. There are many systems in there that make you safer. You have eyes in the sky. You have eyes in the ground with the MIDAS system. You can see what is going on. You cannot do that on conventional motorways. It does not happen. That is the message that we absolutely need to get out there. With the eyes in the air and the eyes on the ground, you can realistically make people safer.

Q284 **Greg Smith:** Let me play devil's advocate for a minute. There are a lot of groups and people out there who currently believe that reinstatement of the hard shoulder would be a good thing. What would it take to actually put back the hard shoulder? Can I ask you to reference in your answer the Secretary of State's suggestion in a previous session? He said that "it would require the equivalent land for 700 Wembley stadium-sized football pitches to somehow undo it all." In your answer, can you explain why that is the case and why we cannot just take lane one and turn it back into a hard shoulder, having three running lanes?

Baroness Vere: That is the point. What are you going to make it into? You have two choices. Either you are going to do the road widening, which is the 700 football pitches—and didn't we have a good game last night?—or you can make the second choice, which is, as you say, "All right. We're just going to put the white line back and make it into a hard shoulder again," and we would reduce the capacity by 25% by doing that.

What would happen if that were the case and we decided that was a good thing to do? First, the safety of the local road network around that area would be impacted. There would be vehicles that would leave the road that is more congested than it was previously and drive on less safe, local roads.

We have done some high-level analysis. If you assume that 25% of traffic is pushed off the road, due to the 25% reduction in capacity, we reckon there would be 25 fatalities a year and 224 serious casualties. The names of those people will never be in the papers because they die on local

roads. People who die on local roads never get into papers. That is one of the things that would happen. For example, we looked more specifically at junctions 13 to 16 on the M1 between Milton Keynes and Nottingham. You could expect up to six people to die. Again, they would not be in the national papers. That is the sort of quantity we are talking about. That is on the safety side, because you would push the traffic away from a road by reducing the capacity.

The other side is that you would push the traffic to where people live. For the M1, I imagine that people would go up the A5, which would make the people of Towcester deeply unhappy and it would be even more congested than it is now. Of course, it would cost money to the taxpayer to put the road back. Again, we would have to be absolutely convinced that it was the right thing to do. It would cost money in terms of delays. We have estimated that it would cost, if it was up to 25%, £2.85 billion.

I am not convinced. I will always keep an open mind, but I have not seen the evidence that justifies such a drastic solution. What I will absolutely do, though, and I think we must do as a matter of course, is look at the evidence, particularly on a scheme-by-scheme basis, to see if there are road improvements that need to be done at a scheme level. We have the M6 and the M1 cluster reports coming out. Not all smart motorways are exactly the same, much as we like to think they are. Roads have very different topographies and very different characteristics. What we need to do is make sure that we are focusing on the local level and not just having a national debate. It is really about how it impacts local people.

Q285 **Greg Smith:** Okay. Within that, I think there are two things that flow. No. 1, an enormous number of motorways are in the conventional format right now. If it is the case, as we have heard, that smart motorways, all-lane running and so on are safer, what is the Department doing to improve the safety of the hard shoulders on the many hundreds, if not thousands, of miles of motorway still with hard shoulders?

Secondly, but on quite a different point, all of the data and the evidence we have been discussing this morning, and through this inquiry, is predicated on the vehicles that are on the road today, predominantly petrol and diesel. There is a risk, is there not, that some of this will become outdated quite fast as there are more and more EVs on the road? When they break down, they are not as easy to shift and get into a safe place as conventional vehicles, particularly if you have a very heavy tailback and everyone's car goes flat. You cannot bring a jerrycan round and put a bit of diesel in. Are there some risks that the hard shoulder is going to be quite useful in the future for the sort of—

Baroness Vere: That is a very good point. You have raised a lot of points there and I would love to cover them all in detail, but I probably won't be allowed to.

Let's start with electric vehicles. When I was at the Highways England control centre last week, I was having a chat with one of the traffic

officers. He opened the boot of his very large Mitsubishi, or whatever it was, and pulled out a bright ring of green bits of plastic. I said, "What is that?" He said, "It's a skate." They are little wedges, and, with a mallet, you bang them under each tyre and you can drag the car. It does not matter whether it is an electric vehicle or a conventional ICE car, you can drag it away. Obviously, we will continue working with the manufacturers on that, but it is in the vehicles of all traffic officers now. That is a positive way forward.

You talked about the 1,546-ish miles of conventional motorway and how we make them safe and would some of these interventions have an impact. It may be that in certain cases they will, but one of the biggest things that we need to continue to focus on is the behaviour of drivers.

When I sat with the lovely Annie, I said to her, "What is the thing that worries you most?" She said, "Drivers." I sat there and, I am afraid to say, I saw some outrageous behaviour on our motorways. I know this happens on all roads. For example, those who want to bring back the hard shoulder say, "Well, bring back the hard shoulder because it will be safer; it will be brilliant." One in 12 fatalities happens on a hard shoulder. We know that 90% of stops on a hard shoulder are not necessary. People need to realise that you should only stop on any motorway in an absolute emergency. Do not stop to exchange insurance details. Do not stop to make a phone call. People do all of those things, and they should not.

I accept the role of technology on some of our motorways in the future and, of course, we will continue looking at it. We absolutely embrace technology to make drivers safer, but there are other things that we need to do with road safety for motorways, and all road safety, to improve the behaviour of drivers.

With an EV, yes, you can run out of electricity. Over 6,000 people run out of fuel on our motorways—6,000 a year.

Q286 **Greg Smith:** But it is quite easy to top them up with a couple of litres so you can get them to a petrol station. I do not forgive doing it—

Baroness Vere: It is quite easy now to just drag the EV off on skates.

Chair: You're having a good chat, but I need to move us on.

Greg Smith: Fair enough. I think I am probably timed out again.

Chair: Thank you very much, Greg. Sorry to interrupt.

The next section is breaking down in a live lane; what are the risks and how have they been mitigated?

Q287 **Mr Bradshaw:** I want to pick up something Greg just said about electric vehicles. If you are stuck in a very long traffic jam, as we heard from one of the victim's spouses yesterday where the coroner could not get through because all the lanes were blocked, and you have lots of electric vehicles in lots of lanes, you are going to have to have a lot of vehicles to

drag them out, aren't you, if they run out of power?

Baroness Vere: Why have they all run out of power at the same time?

Q288 **Mr Bradshaw:** If they are stuck for hours in the winter with engines running for heating, it is possible that they might have miscalculated the amount of power they have left.

Baroness Vere: If that is the case, of course there are many other protocols that Highways England puts in place to get access to the incident, if we are talking about the incident. I would question, if you get stuck on a motorway in the middle of a blizzard, whether or not you are in an EV or a petrol vehicle, that you may not have wanted to leave home in the first place.

Q289 **Mr Bradshaw:** It is not just getting to the incident. It is also removing the vehicles eventually to allow the traffic to flow again.

Baroness Vere: I think we are probably talking about quite a hypothetical situation.

Q290 **Mr Bradshaw:** Okay. What advice would you give, Minister, to a family that has broken down in a live lane on an all-lane running motorway?

Baroness Vere: It would be the same advice as I would give to anybody who has broken down in a live lane on any road. Obviously, if you break down next to a place of safety, you should absolutely try to get to that place of safety. If you break down and you cannot get to a place of safety, you should keep your seatbelt on. You should put your hazards on. You should dial 999.

Of course, if you break down on a Highways England road and you dial 999, if it is an all-lane running road, obviously there are eyes in the sky, so they will be able to find you very quickly. They will be able to set the signs and that will happen within a couple of minutes. The red X will come up; they will set the signs; and they will be able to set the pan, tilt and zoom camera on to your car.

If, unfortunately, you are not on an all-lane running and you are on a conventional, you would still dial 999. It may take a little while to find you because, of course, there isn't CCTV coverage across the whole conventional thing, but you should still sit there with your seatbelt on and your hazards on. Do not leave your vehicle.

Q291 **Mr Bradshaw:** Where is that place of safety on an all-lane running motorway if you are not near one of the bays?

Baroness Vere: If you are a passenger, obviously, you can climb over the barrier and stand. Again, we have seen incidents where people have stood too close to their vehicles, and then somebody has crashed into their vehicle. This would happen at any place. If you were on a dual carriageway without a hard shoulder, get over the barrier, if there is one,

and move away from the moving traffic. People think that they can stand next to the car.

When I was at the control centre, I saw somebody who refused even to get out of their car, despite being told to by a traffic officer. People need to get out of their car and just move away—just 20 feet away. Get far away from your car and ideally towards the oncoming traffic because then you have no chance of your car—

Q292 **Mr Bradshaw:** And if you are disabled or in a wheelchair?

Baroness Vere: We have worked very closely with vulnerable groups. As we have implemented smart motorways, a key source of concern has been how we make sure that disabled people feel as safe as they possibly can. Again, it is to keep your seatbelt on and put your flashers on. We have done specific videos with Disabled Motoring UK, which set out exactly how disabled people should react. We work with the Roads for All forum.

I go back to this simple fact. If you are on an all-lane running motorway, you are going to be found more quickly than if you are on a conventional motorway without the additional system of systems that we have on an all-lane running motorway. That should give people more reassurance.

Q293 **Mr Bradshaw:** Are you confident that these roads are compliant with the Equality Act?

Baroness Vere: We did public sector equality duty reports twice, yes.

Q294 **Mr Bradshaw:** An FOI by Panorama in 2019 revealed a twentyfold increase in near misses after a stretch of the M25 was converted to all-lane running. On average, what percentage increase in near misses has been reported for other motorways converted to all-lane running?

Baroness Vere: I have tried to explain that near misses are not what we think they are. I have talked about the only 3.78% of them even involving vehicles. What is a near miss? Nick, do you want to explain?

Nick Harris: Near misses are part of our health and safety reporting. We have a health and safety system. We encourage all employees, and indeed our supply chain, to report near misses. They are about the health and safety of employees—ours and in the supply chain—and they are not, as you may imagine, about vehicles having near misses on our roads.

This is an incredibly important part of our drive to improve safety. Since the creation of Highways England, you are now, as an employee, 10 times safer than you were working for us in 2015. Of the 40,000-odd near misses that have been reported on our system in the last five years, 1,500 were due to vehicles. Most of those will have been moving plant or a vehicle entering roadworks or going through cones. I think it is a misunderstanding that this near-miss reporting is about near misses in traffic.

Q295 **Mr Bradshaw:** With the money that you plan to spend on making these roads safer, have you made an estimate of what level of risk reduction that will deliver?

Baroness Vere: In terms of the £500 million and the safety action plan?

Mr Bradshaw: Yes.

Baroness Vere: We have not at this current time, the reason being that many of the things we are doing are more about public confidence and public education than necessarily what we are able to quantify in the statistics in a forecasted sort of way.

If you think about the interventions that we are putting in, it is much more about informing, communicating and building up confidence with drivers. We know that confident drivers are safer drivers. That is what we are trying to instil in the all-lane running system in smart motorways, and whatever we can do to help that, we believe, is money well spent. It is not the case that you can say £X per serious casualty reduced. It is more about putting confidence into the system.

If we do not do that, and we do not achieve what we want to achieve in terms of extra data, digitisation and technology, and we go back to where we were before and take away the hard shoulder, I am fairly sure that that is going to be much more devastating than the money we are spending on building customer confidence.

Q296 **Mr Bradshaw:** So you are hoping this will deliver less risk, but you have not tried to make an assessment as to how much less risk.

Nick Harris: Perhaps I could add a couple of things. We have a target in this five-year road period of reducing all casualties by 50%. This investment, I believe, is a really important contribution to that aim.

We talked about the POPE reports earlier. When we are making the comparison with the performance that we see now and our projected performance, we do it with a counterfactual comparison. We do not take only the performance of the road before we got the new scheme. We also apply the reduction in casualty rates that we are achieving in general. We want to make sure that the investment is consistent with continuing that trajectory. Each specific intervention—there is a whole range of measures we have taken—needs to be valued individually, so it is difficult to give a general view.

Mr Bradshaw: Apologies to our Zoom witnesses. I feel you are getting a bit left out. Is there anything you want to add to either of those contributions? No? Excellent. We have saved a bit of time there, Chair.

Q297 **Chair:** Ben, you are as polite as ever, and a lesson to us all. Next, we want to look at spotting vehicles that have broken down in a live lane. I will hand over in a minute to Karl McCartney to talk about stopped vehicle detection.

Before I do, can I talk a little bit about CCTV monitoring with you? Does Highways England have a policy for the routine monitoring of smart motorways by CCTV?

Baroness Vere: The CCTV system is 3,000 cameras across the network. We know that smart motorways have 100% coverage by CCTV, and they are specific pan, tilt and zoom cameras. The reason why we have them is not for monitoring, because there are thousands of them and you would have to have a football stadium full of people staring at different TVs. They help us deal with an incident, understand what it is and then know what response to make.

It is amazing. I have been in the control centre, as I have mentioned hundreds of times. Something comes up and says there is an alert. The operator then immediately knows which of the many thousands of cameras to go to. They go to that camera and look. They see what has happened and what might need to be done, and then can set signs and signals immediately. That is how the CCTV is used.

Q298 **Chair:** That is how it is used, but is there a policy for the monitoring of smart motorways? Is there an actual policy for Highways England? Does Highways England have a policy?

Nick Harris: The use of CCTV cameras, just as the Minister explained, is part of the safety case for the operation of all-lane running or smart motorways. They are there to locate and identify the issue.

Of course, there are a number of ways the control room can become aware that there is an incident—

Q299 **Chair:** Sorry, I am going to come back on that. Is there or is there not a policy for the constant monitoring by CCTV of smart motorways?

Nick Harris: The CCTV is not constantly monitored. There is not a policy for that. The CCTV, to repeat again, is to locate and identify the incident and then deal with it.

Q300 **Chair:** Your counsel, in an inquest into the death of Mrs Begum on a stretch of a smart motorway on the M1, said that there is "no policy for constant or routine monitoring of the motorways."

Baroness Vere: By CCTV, yes, because you would need thousands of people, and it is not what it is there for. That is right.

Q301 **Chair:** But equally, Highways England claims to have 100% coverage of the smart motorway network. One of those things cannot be right.

Baroness Vere: No. You can have coverage, but it is not always monitored. You can bring it up in a flash. That is what it is there for. You can look at any CCTV camera at any time from a control centre, but it does not mean that a person is watching that camera 100% of the time. However, it is interesting to note that we have done trials using the CCTV footage, as to whether it can actually act as a stopped vehicle detection

system. Of course, this one—SVD—is radar based. It may be that CCTV will become monitored by technology in the future, but are you going to have every single camera monitored individually by a human being? No.

Q302 **Chair:** I get that, but that means you cannot have 100% coverage of the smart motorway network.

Baroness Vere: No.

Chair: Which is what Highways England claims. That is the reason I am putting it to you.

Nick Harris: But 100% of the smart motorway can be seen by CCTV.

Chair: But no one is actually looking at it.

Nick Harris: But no one is looking at it all the time, for the reasons we have just explained.

Baroness Vere: You still have coverage.

Nick Harris: Yes, you still have the coverage. You have more than 100%.

Chair: You have coverage, but no one is actually monitoring it. That is the point I am trying to make.

Baroness Vere: Yes, and they are two different points. I agree. There are two different points: coverage and monitoring.

Q303 **Chair:** How many of the CCTV cameras that monitor smart motorways are out of action or broken at any one time, or are they always running?

Nick Harris: Like all technology, some of it fails. Some parts of our network—the M25 that you were probably looking at from South Mimms—have some of the old cameras. We monitor very carefully the availability of technology. It is normally around 99%.

The great thing on smart motorways is that we actually have more than 100% coverage, so that allows for a number of cameras to be not functioning at any given time. We can still see the whole of the road.

Q304 **Chair:** More than 100%?

Nick Harris: Yes; more than 100%.

Q305 **Chair:** What I am trying to drill at with all of this is, if you do not have all of the eyes on all of the CCTVs on all stretches of the smart motorway, and I understand the logistics and the resourcing required, are you confident that you can actually get to people promptly when they are in difficulty, as per Mr Bradshaw's point earlier? The AA has told us that, on average, it takes staff in your regional control centres 17 minutes to spot via CCTV a vehicle that has broken down, and another three minutes to close the lane. Do you recognise those figures?

Nick Harris: No. I think there is some confusion. There is a whole range of different statistics that have been talked about.

Q306 **Chair:** Indeed, and there has been all the way through this inquiry. We are very keen for you to clarify things.

Nick Harris: I will try to lay it out for the Committee as best I can. From knowing that someone has stopped or broken down on the road, which may come because of MIDAS or because of stopped vehicle detection, or it may have been reported by one of our traffic officers, the police or a passer-by, or indeed by the driver who has broken down, we have a target of three minutes to set signs and signals to protect the lane.

We actually achieve it in around a minute and a half. We are currently working on improving that further. Once we know that a vehicle has broken down or has stopped, we get signs and signals set within that time. Why does it take that long? Well, the operator using the CCTV needs to locate and understand the issue, and needs to understand the signs and signals that need to be set and get them set. Our performance is very good on that.

Where we have stopped vehicle detection, the specification on the radar-based stopped vehicle detection is to alert the control room within—

Q307 **Chair:** We are coming on to that, with Karl.

Nick Harris: As to where the 17 minutes comes from, just to be helpful, I think that was some statistic that had been shared in the past about the average time it takes for one of our traffic officers to attend an incident, to physically get there.

Q308 **Chair:** They say 17 minutes to spot a vehicle that has broken down, whereas you think that it is 17 minutes to get there.

Nick Harris: Yes.

Baroness Vere: It is a misunderstanding.

Nick Harris: Yes, a misunderstanding.

Q309 **Chair:** Do you want to double-check that and then write to us, or are you happy to clarify that they have got the 17 minutes—

Baroness Vere: Mike has his hand up.

Nick Harris: Mike wants to come in.

Chair: I am sorry. I am focused so much on Mr Harris, looking him in the eye, that I failed to see Mike.

Mike Wilson: It is just to confirm that there are two 17-minute figures that are used. There was a study that was done to look at the counterfactual when we were implementing stopped vehicle detection.

Using CCTV, there was this figure of 17 minutes to identify a stopped vehicle.

Q310 **Chair:** Say that last bit again, Mr Wilson. It was 17 minutes to spot?

Mike Wilson: Yes. There was a figure that came out of a very small study on the M25 as part of our analysis on stopped vehicle detection that showed that it can take 17 minutes to identify a stopped vehicle.

Q311 **Chair:** Okay. Unless I am being a bit dense, I think that slightly contradicts what Mr Harris has just told me.

Nick Harris: To clarify, we are talking about two different things. Our target, once we know that a vehicle has stopped, is three minutes to locate, identify and set the signs. We are talking about an average. What the study was referring to was how long it could take. If you look at a normal distribution, there are tails to it. I think that was the longest time that came out of that.

Coincidentally, 17 minutes was, but no longer is, the average time it took us to attend physically.

Q312 **Chair:** I get the point about attending physically.

Baroness Vere: Shall we dig out that study and provide it to the Committee?

Q313 **Chair:** Yes. I really want you to write to us and tell us what the average time is for the regional control centre to spot a vehicle that has broken down via CCTV. That is what I am after.

Nick Harris: Let us write to you on that. Again, we are looking at a very specific finding from the study for stopped vehicle detection and not the average performance of our control rooms.

Chair: It is the latter that I want.

Nick Harris: We can clarify that.

Chair: Let's move on. We almost got there, but I dragged us back. This one is for Karl McCartney on stopped vehicle detection. Karl's microphone is not the greatest, so use your ears.

Karl McCartney: I hope it's better. Can you hear me, Chairman?

Chair: Yes.

Q314 **Karl McCartney:** Before I ask my first question, I would like to come back to all the witnesses on two things. We need to clear up the question on near misses. This is to the civil servant in the room.

The common man or woman on a street or a motorway would regard a near miss, be that on a smart motorway with somebody stopped in a live lane or on a hard shoulder, as a lorry or a car just missing the vehicle that had stopped. You seem to think, or you record, that the near misses that you are citing are when people hit traffic cones that are placed by

roadworks. We need some clarity on that, please. If you could provide that information to the Committee in the very near future, we would be happy to receive that.

Secondly, on the statistics that the Minister used regarding consultations, there are 33 million vehicles on the road. There are probably even more than that now and even more drivers. We can all use percentages, but what actual numbers of people who drive on motorways have you consulted in the three different consultations we were given? If we could be provided with the actual figures of those consultations and the dates, I would be very happy.

I will move on to my questions. I have asked some of the witnesses in prior witness sessions my first question, so maybe Jill and Mike would like to answer this first and then the two witnesses in the room. Have you yourself ever broken down or had to stop on either a hard shoulder or a managed or smart motorway, or an all-lane running motorway? It is a very easy answer: just one word, yes or no.

Jill Adam: Yes. I once had to stop on a conventional motorway with a hard shoulder, but it was quite a long time ago.

Mike Wilson: Yes. I, too, have stopped on a conventional motorway. I have not stopped on a smart motorway, but I have been in traffic officer vehicles managing live-lane incidents.

Karl McCartney: You have pre-empted my second question, which is coming. Minister?

Baroness Vere: No, unless I have forgotten.

Karl McCartney: And our civil servant friend in the room?

Nick Harris: That's me, I guess. I am dragging the depths of my memory, but I think I did once stop on a conventional motorway. That could have been in the 1980s.

Q315 **Karl McCartney:** The reason I am asking is in my second question, and maybe we will go in reverse order. It is all well and good us all sitting talking in a nice room or drinking coffee and eating biscuits in departmental meetings, but there are people out there who have to work on the motorways, whether they are recovery or emergency service personnel.

Have any of you spent any time with them, actually seeing what happens on a motorway after an accident or an incident and what those people have to deal with in their working environment?

Nick Harris: There are a couple of things in answer to that. Yes, I have spent time with a number of our traffic officers attending incidents. I have first-hand knowledge and experience of what a scary environment a live road is.

To add to your reference to the recovery sector, they are a hugely important part of looking after drivers on the roads that we run. For that reason, I was very pleased to sign a strategic partnership agreement with the AA, the RAC and the independent contractors in March last year. We created a national executive committee that meets at least twice a year, and I chair that. Off the back of that, we created a number of working groups that are focusing on safety, red X compliance, training and standards that are used across the industry.

I have been really pleased to be able to listen both to their concerns and to the knowledge that they have gained from their operations—

Q316 **Karl McCartney:** I am going to cut across you because we are short of time. I will say that that is all very good to hear, but kind words butter no parsnips.

Nick Harris: They are achieving—

Karl McCartney: Let me finish my point and then you can answer. I have asked other witnesses this, and that includes the AA and the RAC. I suspect that in the middle of the night it is not their personnel who are sent out to smart or conventional motorways to do recoveries. It is their contractors because of the safety aspect.

Nick Harris: Yes, the independent contractors—

Karl McCartney: I think any of the recovery drivers who actually work on our motorway systems would say they would rather go and pick somebody up who was broken down on a hard shoulder than on a smart motorway or an all-lane running or managed motorway, if they were in a live lane, whether it has a red X or not. Would you agree?

Baroness Vere: But they would be protected by traffic officers. They never, ever go on to a smart motorway and recover a vehicle without a traffic officer being in attendance and managing the entire situation. Again, that does not happen on A roads, but it does happen on smart motorways.

Q317 **Karl McCartney:** I understand that, but if you did their job, would you rather pick up a vehicle and load it on to your low loader, or use the skates that you were talking about for electric vehicles, using the hard shoulder than out on a motorway?

Baroness Vere: I don't know. It depends. You could say that, on a hard shoulder on an A dual carriageway, you would have no protection at all from traffic officers. You would literally be on your own on some of them.

Q318 **Karl McCartney:** Most of those have verges, as you and I both well know.

Baroness Vere: I am not sure if there is any evidence, but we have traffic officers to keep the recovery operator safe. That is absolutely our priority. If there is one group of people in all of this who I think are at the

absolute frontline, it is the traffic officers. I hugely respect what they do. I look forward to going out with them because they have offered me a trip in one of their big vehicles.

Q319 **Karl McCartney:** I look forward to hearing from you when you have done that trip. That is why I have asked the questions I have asked.

I will very quickly ask the same question of Jill and Mike. Have you been out with any recovery drivers in the middle of the night?

Jill Adam: I have not been out with recovery drivers in the middle of the night, but I have visited construction sites where HE workers have been working in close proximity to live lanes. I echo your feeling that it is quite a challenging environment, which is why we remain very focused on safety.

Karl McCartney: Thank you. Mike?

Mike Wilson: I was a regional director for three of Highways England's regions during my career. I had traffic officers working for me and have spent a lot of time talking to traffic officers in their outstations, and with them in their vehicles.

I reiterate the point that the Minister and Mr Harris made. We do not expect vehicle recovery from a live lane. The vehicle recovery happens from an emergency area. I would suggest that an emergency area, because of its size in comparison with the hard shoulder, is a preferable place to be. Either a traffic officer will move the vehicle to an emergency area where recovery will take place, or indeed we close the lane with the support of a traffic officer vehicle so that it is no longer a live lane, and that is where the recovery takes place.

Q320 **Karl McCartney:** I think more likely these days they seem to close the whole motorway, but we will leave that one where it is.

Coming straight back to you directly, Mr Wilson, you told our predecessor Committee back in 2016—the Chairman and I were on it—that you were confident that stopped vehicle detection worked, and that the technology "would be part of the standard roll-out of smart motorways going forward." Why has it taken so long to roll out this technology?

Mike Wilson: Since the first smart motorway was introduced in the mid-1990s, we have had an evidence-led programme of continuous improvements. As part of the development of all-lane running and smart motorways, we were very mindful of the additional risks associated with live-lane breakdowns. We were looking for technology that would support and reduce those risks.

In 2013, we identified that there was the possibility of technology, which was being used in Sweden, that could reduce those risks. We undertook a pilot on the M62, which was not successful, but learning from that we then introduced a further pilot on the M25. Based on that and the evidence, I was confident enough to be able to say to the Committee in

2016 that we would be introducing stopped vehicle detection as part of our schemes going forward, and retrofit as well.

Karl McCartney: And here we are, five years on, with it being—

Mike Wilson: The technology was in its infancy at that point. We had detection technology, but what we did not have was full stopped vehicle detection capability. We further developed that technology through an operational pilot, as the Minister said earlier, which started in 2017 on the M25 on a large scale. That was on the M25 between junctions 23 and 27. That enabled us to develop standards for detection, software and hardware for control rooms, and the procedures that allowed control room operators, as the Minister saw last week, to receive alerts and manage the incidents.

Q321 **Karl McCartney:** I am going to stop the question there because I want to ask some other questions before my time is up.

Going to our friendly civil servant in the room, when did you first request to see a timetable for the roll-out of stopped vehicle detection technology?

Chair: Is that to Ms Adam?

Karl McCartney: No, sorry. That is to Mr Harris because I presume the Minister was not in post when that was first requested.

Chair: So from a chief executive of Highways England perspective.

Nick Harris: Mike Wilson was going through the timetable of the stopped vehicle detection roll-out. Following the success of the pilot scheme on the M25, in 2017 we came up with a programme, both for the forward implementation of stopped vehicle detection and the retrofitting. Purely from memory, that was about five years ago. As the review of the stocktake was taking place in 2019, with the publication of the stocktake report in 2020, we were encouraged to look at that again to see if we could accelerate it, which we did. That is when we came up with the programme to roll out stopped vehicle detection on all smart motorways by spring 2023. Back in 2019, that was the programme that I saw.

We have subsequently been able to accelerate that because the work has gone better. We will now have completed that work six months earlier, in September next year. At the moment, as we stand, 50 miles of smart motorway have stopped vehicle detection in place, operating and commissioned, meeting our specification or better. By the end of this financial year, we are on track, and it is something that I monitor each month, to have 126 miles of smart motorway covered. By September, it will be 229 miles. It is more than the 141 miles we currently have because there are schemes that we are opening. Really importantly, we made the decision—I think it was a good decision—not to open any more smart motorway schemes until stopped vehicle detection was working on them.

Q322 **Karl McCartney:** And many of us were very pleased about that last information you just shared with us about your decision.

Minister, the Secretary of State told us in January that he had brought the deadline for the roll-out of stopped vehicle detection forward several years. What was the target date for the full roll-out of stopped vehicle detection before the stocktake was commissioned?

Baroness Vere: I am afraid I am going to have to write to you because I cannot quite remember where we started from.

Karl McCartney: It is quite a nuanced question; I realise that.

Baroness Vere: You are taking me back too long. I cannot remember where we started from. As I mentioned earlier, we pressed very hard in the 2020 action plan to get to where we got to.

Nick Harris: And it was shortened.

Baroness Vere: It was shortened.

Q323 **Karl McCartney:** That's fine. Baroness Vere, I want to ask a question on your safety stats. I think you might have contradicted yourself in some of the answers you have given us, in the fact that smart, managed or all-lane running motorways have lower speed limits at certain times. That is obviously a factor in causing accidents. Normal motorways, nearly 100% of the time, are running at 70 mph or more.

Whether it is miles travelled or the number of vehicles on a motorway, surely you are not comparing like for like when you are claiming that smart motorways or managed motorways are safer than normal motorways, when most people who drive on them would feel completely differently from what you are claiming.

Baroness Vere: I am sorry, I don't understand the question. It is very hard to hear you. Could you ask a specific question?

Karl McCartney: The specific question is this. There are two different types of motorways. Earlier on you claimed, rightly so, that managed motorways, smart lane-running and all-lane running motorways are often at a lower speed limit than 70 mph. They can be 60, 50 or 40. Normal motorways run 100% of the time mostly at 70 mph. Therefore, are you comparing like for like when you are claiming that smart motorways, all-lane running motorways or managed motorways are safer, whether it is comparing number of vehicles or miles travelled, than normal motorways? I am just asking if you think you are comparing like for like.

Baroness Vere: I think we are. I am trying to figure out exactly where you are going with this. I think we are because we are comparing different types of motorways. Just because the national speed limit is set at 70, remember it is a limit and not a target, as I remind my child. What I was pointing out earlier was that dynamic hard shoulder, when the hard shoulder is running as a live line, operates at a 60 mph limit. That is why,

if you look at dynamic hard shoulder, the fatalities are lower. That would probably be expected because of that—

Q324 **Karl McCartney:** But if you ran all motorways at 40 mph, they would all be a lot safer than they currently are, running at 70 mph.

Baroness Vere: Which is why I made the point at the time that, actually, the speed limit question goes much broader than the subject from today.

Q325 **Karl McCartney:** At times, predecessors to yourself, and the Department, said that we were going to be having a higher national speed limit on motorways, but we will park that one there.

My final question is to Highways England. Stopped vehicle detection technology only spotted 65% of incidents successfully when it was trialled in 2016. Has accuracy improved since then?

Nick Harris: There are two things. The accuracy of the system that we are rolling out and the coverage so far meets the following specification. It covers 95% of the roadway. The radar can spot a stopped vehicle on at least 95% of the road. It will detect a stopped vehicle at least 80% of the time. With current performance, we are finding that those are comfortably being beaten.

I am not sure exactly of the origin of the 65% number. I think it was an article in a newspaper. They had recut the data in a rather interesting way. We were achieving a higher percentage of stopped vehicle detection. They were also adding to the calculation roads that were not covered, and came up with 65%. I believe that was an error in their calculation, to put it bluntly.

Q326 **Karl McCartney:** Can you give us the actual, practical things that you are doing to tackle the problem of incidents not picked up by stopped vehicle detection technology? Are there any things you can tell us that you are doing to improve the technology?

Nick Harris: I think the question you asked is whether there is something we are doing to improve the technology.

Karl McCartney: It was, yes.

Nick Harris: As the Minister explained earlier, the most important part of the implementation of stopped vehicle detection is the commissioning process. Each stretch of road is different, and the system has to learn what that stretch of road looks like, where all the signs are, and the vegetation and cows in adjacent fields. There is tuning and commissioning to make sure that we get to the accuracy that we are looking for.

What is important is that we do not want to generate an excess number of false positives because that is then an issue for the control room staff. It means that they will not be able to respond quickly to the detection.

The sorts of issues we are finding and improving are when we are grass cutting, or if we leave cones out at the side of the road after we have been doing work overnight. All of these can trigger a detection. We are improving the system in that way.

Another really important—

Q327 **Karl McCartney:** That is good to hear. We all know the problems of false negatives or false positives. I have a final question. I am sorry to cut across you, but I know the Chairman will want me to hand back to him.

You have not yet published the evaluation you conducted of stopped vehicle detection technology in 2018. Do you have plans to do so? If not, why not?

Nick Harris: We published a report in 2016. The 2018 report was shared externally. We had to redact parts of it because there was some commercially sensitive information. It was released following a freedom of information request. I will make sure that it is available generally.

Karl McCartney: Thank you.

Q328 **Chair:** Mr Harris, if that figure of 65% of incidents is not one that you recognise, can you write to us with a current figure?

Nick Harris: Yes, I am more than happy to share the current performance. From memory, we are achieving in the 80s, between 80% and 85% detection on the systems that we are rolling out. Let me write to confirm that.

Q329 **Chair:** It is good of you to share the memory, but by all means write to us.

I want to come back to Mr Wilson. You are the chief highways engineer. Back in 2016, you told the predecessor Committee and Parliament in relation to stopped vehicle technology: "We are now confident that it works, and it will be part of the standard roll-out…going forward." That was on 9 May 2016. That did not occur. Why did it not occur?

Mike Wilson: It did occur. From May 2018, it was part of our standard specification going forward—

Chair: Sorry, on 9 May 2016 you told us that.

Mike Wilson: Yes. I was explaining earlier about the development work necessary to turn a new technology into a system that we could specify and procure. That work was undertaken. It involved an extensive operational trial. The commitment I gave was based on a trial on the M25, on a single link between two junctions, and then the operational pilot was put in place in 2017 on the M25 between junctions 23 and 27. It dealt with all the issues that I described earlier and—

Q330 **Chair:** Let me just interrupt. What you are saying is that following 9 May 2016 all-lane running smart motorways were fitted with stopped vehicle

detection technology.

Mike Wilson: No. That is not what I am saying.

Q331 **Chair:** In that case, you did not correctly respond to us when you said you were confident that it worked and that it would be part of the standard roll-out going forward.

Mike Wilson: Forgive me, but it was part of standard roll-out going forward. Admittedly, I could have been clearer, when I made the commitment, that there was still development of the system that was necessary, but it was included as part of the standard specification from May 2018. As Mr Harris has described, we are undertaking a retrofit that will be completed in September—

Q332 **Chair:** But I am not interested in 2018. I am interested in the day after 9 May 2016 and whether you were then delivering all-lanes running without that technology, because you said you would not.

Mike Wilson: Sorry, I said that it would be part of the standard specification going forward.

Chair: Part of the standard roll-out going forward.

Mike Wilson: And it was. It was going forward as of May 2018.

Chair: Oh, come on. I'm sorry, but that is just not good enough. When you say, "going forward", it does not mean in two years' time. It does not need me as a lawyer to say that. We all know that is the case. I think sometimes it is better just to put your hands up and say, "It turned out not to be the case because we had supply issues," or something else. But to give me that answer, I am sorry, it is just not good enough for Parliament.

Back in 2018—let's go back to 2018—when we had a grand total of 18% of the all-lanes running covered by stopped vehicle detection technology, Mr Harris, I remember your predecessor Jim O'Sullivan telling us that the reason why the all-lanes running stretch was open was that motorists saw the road finished and they wanted to try it. What on earth is that in terms of a policy decision? That does not seem to be based on safety. It seems to be based on curiosity. I know it was not you, but he was the chief executive of Highways England and he said it to Parliament, and here we are.

Nick Harris: I cannot comment on that statement. We could absolutely have been clearer in 2016 about the timescales involved. We have clearly given the wrong impression there. I do not think that was the intention. We were very much focused on rolling out this improvement, and we are doing it successfully now. Clearly, we did not give the right impression then.

Q333 **Chair:** Good. That was the better answer that I was hoping for. Minister, we look at this historically because some of us have been involved in it. I found it incredible when the Department was saying that it was rolling it

out 12 months early, whereas I regard it as about six years too late, given the assurance we had had from Mr Wilson. Do you understand my frustration?

Baroness Vere: Chair, I understand. I hear your frustration. I wish you were not frustrated. We will endeavour to make sure you are not frustrated in the future.

Chair: Let's move on from my rant and go to safe places to stop, with Grahame Morris.

Q334 **Grahame Morris:** I would like to ask some questions of Nick Harris regarding emergency refuge areas and safe places. I would also like to touch on red X compliance if we have time.

Mr Harris, why did you decide to reduce the distance between emergency stopping areas to every three quarters of a mile, where that was feasible, on new smart motorway schemes?

Nick Harris: Thank you for the question. My focus is not only on people and drivers being safe on our roads but on their feeling safe. We have talked in this session, and we heard a lot from drivers and organisations like the AA, the RAC and previous visitors to this Committee, about the importance attached to places of safety and their visibility, and that drivers would know they were there and that they could access them if something went wrong.

In developing a new design standard—GD 301—which we are now applying to all new schemes, we were addressing not only the improvement in actual safety that we see in the evidence we have talked about, but the feeling of safety and reassurance. It matters just as much that drivers feel safe.

We have done an analysis of safety compared to spacing of places of safety or emergency areas. There is not a strong body of evidence that shows that safety is affected by that spacing. However, it is quite clear from feedback from drivers and other organisations that people feel that spacing is very important, and we have responded to that.

Q335 **Grahame Morris:** That is very interesting about the perception. I might say it is one that I personally share. It begs the question now, shouldn't emergency or safe areas be retrofitted to the same standard on all existing all-lane running motorways?

Nick Harris: We are looking at that in two ways. Looking at the general question first, we have put 10 additional emergency areas on the M25. Since last year we have been evaluating the performance there, as well as evaluating in general the impact of spacing between EAs on safety, as I touched on. Together with that evaluation, we are going to bring forward some proposals for a retrofit programme.

The other area I want to touch on is that, of course, we look into every incident. We mentioned earlier today the four cluster reports that we are

doing. There are four stretches of smart motorway that we are looking at. We are always evaluating performance. If we find that additional emergency areas could improve performance in specific areas, that is something we will just go ahead and do.

Q336 **Grahame Morris:** That is useful, and it brings me to my next question. Ms Adam, how much will it cost to retrofit safe areas on existing motorways?

Mr Harris, what is the outcome of the review that you conducted of the spacing of emergency refuge areas after our Transport Committee report in 2016? What was the nature of that review? When did it begin? What did it conclude?

Ms Adam, can you give us an indication of the cost of retrofitting first, please?

Jill Adam: In a sense, that is still an open question. We are waiting for some detailed advice from Highways England. I think we are expecting the costs of a national retrofit to be hundreds of millions of pounds, as well as the cost of the disruption that closing lanes in order to do that work would cause. It is quite a big decision. It is one that we have committed to look at, and we are looking forward to seeing the information, including for the M25 experience, so that we can consider that question.

Q337 **Grahame Morris:** Is there a disaggregated average cost per refuge area, or does it vary widely according to the nature of the location?

Jill Adam: It varies according to the specific circumstance. One of the challenges of retrofit is that the design of the road will likely have taken the easier places to deliver spacing. It can, in some cases, be harder and potentially more expensive to find places to put in additional refuge areas between the ones that were part of the original design. Again, we will look carefully at the information we get from Highways England.

Q338 **Grahame Morris:** Thank you. Mr Harris, is it fair to conclude that the outcome of the review that you conducted on behalf of the Department of the spacing of emergency refuge areas or safe areas after our report in 2016 was that it was advantageous to increase the frequency and reduce the spacing?

Nick Harris: From purely a safety point of view, looking at all the data, there is some correlation between safety and spacing but not a very strong one. There is a significant amount of variability in the data. From that point of view, there is not a strong argument, depending on the costs, for the spacing. That is why we have reflected it in our new design standard.

However, drivers feeling safe is as important as them being safe, which is why we changed the new design standard. It is, of course, far more effective to build that in while you are doing the scheme than to do a retrofit.

Q339 **Grahame Morris:** I understand. It begs the question, when will this review be published?

Nick Harris: It is a stocktake action. We have committed to doing that by April next year.

Q340 **Grahame Morris:** Thank you. Time is desperately short, and I am keeping an eye on the clock, but I want to ask a couple of questions about red X compliance. I will direct the first one to Mike Wilson.

In 2019, you reported that red X signals were almost 95%. Is that still the case? How do we measure compliance with red X signals? What plans do you have, through the Department, to ensure that drivers take red X signals seriously? I am thinking about education or any other method. Mike, could you answer that?

Mike Wilson: The way that it is measured is that when a red X signal is set, there is traffic that complies with that signal and traffic that does not comply with that signal. The latest numbers we have on compliance are around 92%.

The work that we are doing to improve compliance falls into two areas. The first is awareness. We are talking about helping people to understand what to do when they see a red X. We are currently updating the highway code. In fact, the latest update was laid before Parliament recently. We have undertaken seven national campaigns. We undertake local campaigns when we are enforcing the cameras.

We have revised the national motorway awareness course. If people have been caught speeding or passing under a red X, the police have the option of asking them to attend a course. Almost 100,000 people a year attend that. We have sent out warning letters through the police. About 97% of people understand what the correct behaviours are, but clearly there is some more work to be done to ensure that they follow them.

On the enforcement part, we have, through the Home Office and the Department, updated the necessary legislation. We have now updated our standard enforcement cameras to enable them to enforce red X. As of today, 48 of the 95 will be upgraded. That work will be completed in September 2022.

Q341 **Grahame Morris:** How many cameras are there in total capable of enforcing the red X signals?

Mike Wilson: I don't know. There will be a mixture of cameras that have been installed that are compliant with that system as well as the number that are—

Q342 **Grahame Morris:** That are programmed.

Mike Wilson: I have the upgrade number in front of me, but not the number that have been delivered as part of schemes since the specification was changed. I can let you have that information.

Q343 **Grahame Morris:** That is very kind. It would be helpful if you could. I want to ask about the recent change in the law that enables automatic detection and enforcement of red X violations. When did the Department for Transport first make a request for a timetable for smart motorway cameras to be upgraded in order to comply with the Home Office change in the law? I am trying to ascertain how long it has taken between making that request, the law changing and then doing the work.

Mike Wilson: There were three pieces of legislation that needed to be changed. The first of those was a change to the Traffic Signs Regulations and General Directions. That took place in April 2016. The final piece of legislation was the Road Traffic Offenders (Prescribed Devices) Order in 2019. The first equipment was type approved—it had to be approved by the Home Office for use—in November 2019. Enforcement started in December 2019.

Grahame Morris: I am grateful. I am conscious of time. I had another couple of questions, but I will hand back to the Chair because there are some additional things he wants to raise with you. Thank you very much.

Q344 **Chair:** I just want to touch on the emergency services. They have told us that they struggle to access incidents on smart motorways when all four lanes are used and the traffic is congested. Do you recognise the concern? If so, do you have a plan to deal with it?

Nick Harris: Yes. When we implement any new scheme, there is the design and construction of the scheme, and then the operating plan. We have a national operating plan that we have agreed with the emergency services, and then a specific plan for the scheme. The emergency services—police, ambulance and fire—are involved in the development of that plan, so that we know how we will access an incident. That may involve, of course, getting through traffic or, in some circumstances, although it does not happen very often, coming at an incident from the reverse direction.

Q345 **Chair:** Logically, I was thinking that you would end up closing a further section and then they would come back on themselves.

Nick Harris: It does not happen very often.

Q346 **Chair:** Is that because they can find a way through?

Nick Harris: Normally, they can find a way through.

Q347 **Chair:** Thank you. I was going to mention that the AA would like to see the highway code changed to include provisions, but actually I think the highway code has indeed been changed.

Baroness Vere: It has been laid before Parliament, yes.

Nick Harris: We are talking at the moment to the AA about an emergency lanes approach. That is something that I hope we will bring forward in due course.

Q348 **Chair:** To be fair, I think it might be including provisions for an emergency corridor, where vehicles in stationary traffic create a corridor. Is that in there?

Nick Harris: No. That is what we are talking to the AA about at the moment.

Q349 **Chair:** So that would mean another change to the highway code, which does not happen very often.

Baroness Vere: It seems to at the moment.

Chair: It shouldn't.

Baroness Vere: Another one is coming soon, so you never know. We are talking to the AA about the emergency corridors. It is a good idea. We will see if it is operationalised.

Q350 **Chair:** Minister, as you said, you have inherited this. We have taken evidence that has showed there is real focus, and that is welcome. Indeed, there is renewed focus inside Highways England that has been welcomed throughout the inquiry.

The evidence seems to suggest that smart motorways are safer than a conventional motorway, but perhaps the taking away of the hard shoulder impacts that safety a little. It also seems to suggest that there are bold economic benefits to drive the move to all-lanes running, but that work is still to be detailed. Do you want to give some final thoughts, bearing in mind that we are going to be writing our report, on how you see the future looking?

Baroness Vere: I thank the Committee for all of their work. I look forward to reading the report. Obviously, we will take all of the recommendations incredibly seriously.

It is the case that the move to smart motorways—albeit happening over quite a long period of time—is a fundamental change in how we use our roads, what our expectations are of the roads and how we can expect our safety to be impacted by the technology and the digitalisation that has happened.

The big thing that I am taking out of this at the moment—until you tell me the other things I should be taking out of this—is communication. We are never going to be able to stop communicating. In fact, we should not, both on smart motorways and on road safety in general. We know that in a combination of roads, vehicles and drivers, the driver element can have a very significant impact on safety.

We have to understand that all-lane running motorways offer benefits. They are a system of systems. Again, that is really important to understand. On a conventional motorway, the hard shoulder is one part of the system, but we know it is not safe to stop there either.

Going forward, we need to check in greater detail and with greater consideration all evaluations of not only smart motorways but, in my life, all roads projects. That is going to be key. We need to be able to take lessons learned from them, and those may be applicable to all sorts of different systems.

I recognise some of the questions that have been raised today. Nothing in what has been raised today has surprised me. I have had to give this a huge amount of thought. It is a very significant responsibility, when you give this a huge amount of thought and think, "This is where I think this should be going," when so many people are quite noisily saying that it is a bad idea. That is why the evidence is absolutely key.

In my mind, I think most people do not really have an opinion. They get from A to B by the quickest route: "If I'm going to Yorkshire, am I going on the M1 or the A1? No idea. Google Maps will tell me." I do not consider whether the M1 is probably far safer than the A1. I think that most people are in that camp. Road safety is something that we take incredibly seriously. Meeting families always has a huge impact on anyone, and we want to make all of our roads as safe as they can be.

Q351 **Chair:** Although, at certain points during this proceeding, it looks as if we are interested in history rather than positive change going forward, our reports are always about trying to make positive change based on the evidence and the data. From a timing perspective, when is the Department looking to make its next set of decisions in order for us to feed our report in to influence those decisions?

Baroness Vere: From where we are standing at the moment, there are no decisions imminent. You have seen everything we are doing. We have nothing hidden in a cupboard somewhere. You know exactly where we are headed, where the action plan is headed, the work we are doing on the retrofit and the work we are doing on the evidence. I have tried to outline—I will probably write in more detail—the reports we have coming down the track that we can get to you. Depending on when we get the reports to you, hopefully your report will come and we will be able to take forward your recommendations thereafter, in line with other things that we are doing as well.

Chair: Excellent. I was just about to congratulate myself on finishing bang on time, but I can see Mr McCartney's hand.

Karl McCartney: Just very quickly, to go back to the Minister, if you are travelling up north, do take the A1. It is prettier and it goes through Lincolnshire.

Chair: A constituency interest has just been raised.

Baroness Vere, Mr Harris, Ms Adam and Mr Wilson, thank you so much for taking us all the way through this exercise with really detailed evidence. We are very grateful indeed for your time. We wish you all the

very best for the project. We will have a report for you before the summer.