

Welsh Affairs Committee

Oral evidence: [The Cancellation of Rail Electrification in South Wales](#), HC 403

Tuesday 16 January 2018

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[Watch the meeting](#)

Members present: David T. C. Davies (Chair); Tonia Antoniazzi; Chris Davies; Glyn Davies; Paul Flynn; Ben Lake; Liz Saville Roberts; Thelma Walker.

Questions 122 - 186

Witnesses

I. Joseph Johnson MP, Minister of State, Department for Transport, and Brian Etheridge, Director of Network Services, Department for Transport.

Written evidence from witnesses:

– [Department for Transport](#)



Examination of witnesses

Witnesses: Joseph Johnson MP and Brian Etheridge

Q122 **Chair:** First of all, I apologise to anyone who has been inconvenienced because of the votes. That is something we had no control over. I thank the Minister for turning up with Mr Etheridge. Obviously, it has been a bit disruptive, but we hope you can stay for an hour or so, Minister, or at least as long as you possibly can to help us with this inquiry. Can I start off by asking: is electrification of rail lines a good thing, Minister?

Joseph Johnson: First of all, thank you for inviting me here. It is an early encounter with your Committee in my new post. I am pleased to address some of the issues around electrification.

Electrification in and of itself is not an outcome that we seek to achieve. What we seek to achieve is passenger benefits in a manner that is cost effective for the taxpayer and for the fare-paying passenger. Electrification is a means to an end rather than a goal in and of itself.

Q123 **Chair:** The National Audit Office has said that the total costs of electrification are around £5.58 billion. That includes the changes to the infrastructure that go with it. The cost of the trains is £4.1 billion, so we are not far off £10 billion. Then I saw in *WalesOnline* the suggestion is that at peak times between south Wales and London we might see a 15-minute improvement, but that would be partly made by skipping stations at Reading and Swindon. For £10 billion, how much of a benefit are we actually seeing here?

Joseph Johnson: I think the benefits are significant. For passengers going to London or from London to Cardiff, journey saving times of 15 minutes when—

Q124 **Chair:** But Minister, that 15 minutes includes the saving that is made by not calling at Reading and Swindon. Presumably, we could send a train now if we wanted to and not send it into Reading and Swindon and it would save a sum of minutes. I do not know what that is because I cannot get the figure. The actual net saving from the electrification is rather less than 15 minutes, isn't it?

Joseph Johnson: I think that has been taken into account in the cost-benefit analysis of the electrification programme as a whole. If there are disbenefits of that nature, they will have been netted off against the benefits. Overall, when you look at the London to Cardiff segment, the benefit-cost ratio is still positive and acceptable from the point of view of the Treasury and the Department.

Q125 **Chair:** Wouldn't it have been easier if we had taken a decision one way or another in the first place? We started off ordering diesel trains. Then we changed it to electric trains, and now we have some kind of half-



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electric, half-diesel trains because we have decided not to electrify the railway line all the way through. You were not the Minister at the time so this in no way is a criticism of you, but this has been a complete shambles, hasn't it?

Joseph Johnson: It is fair to say the project has changed significantly since it was first announced. That reflects a number of things. It reflects the fact that estimates of costs have changed, but it also reflects the fact that new technologies have emerged that have changed the way the benefits can be achieved. The arrival of these bi-mode trains relatively recently during the life of this project has meant it has been right that the Department and Network Rail have re-evaluated how the benefits are going to be achieved.

Q126 **Chair:** If you had been a Minister five years ago in this Department and you knew then what you know now, would you have gone ahead with any electrification at all or would you simply have waited for this new technology to emerge?

Joseph Johnson: As we look at it today, there are still positive net benefits to electrification on the main London to Cardiff segment, so that stands and it washes its face. There are clear benefits in terms of journey times, the environmental benefits and the operating savings that electrification can enable, but clearly it is not going to be appropriate for all routes at all times.

Q127 **Chair:** Who do you think is to blame for the fact that the costs went up by I think £1.6 billion for the original electrification? Was that DfT or was that Network Rail?

Joseph Johnson: You had your hearings with Mark Carne, the Chief Executive of Network Rail.

Chair: We could not quite get to the bottom of it. They did not think anyone was to blame.

Joseph Johnson: I thought the answers he provided were illuminating in a sense. He said that when they gave those cost projections based on the cost of electrification 20 years ago, they were relying on outdated methodologies. That was one of the principal drivers. The fact that 20 years ago the health and safety requirements were less onerous than they are today meant that electrification could be undertaken in a different way. That was a big driver. The planning process has tightened up and meant Network Rail has more difficulty.

Q128 **Chair:** Surely they would have known all of this before they embarked on the work to come up with an estimate of the costs.

Joseph Johnson: That is absolutely right. There were definitely lessons to be learned from how they arrived at the early estimates for the cost of this programme and that was the purpose of the various reviews that the Department for Transport has put in train in the time that has elapsed since: first of all, the Hendy reset to examine what parts of the



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programme could be salvaged, and then, secondly, the Bowe review that set out recommendations for how the Department can tighten its grip on the overall process of commissioning enhancements on the network.

Q129 Chair: The people of south Wales in particular who travel between Cardiff and Swansea will now not be getting the electrified line that they were promised. Are they paying the price for mismanagement and incompetence within Network Rail and possibly your own Department?

Joseph Johnson: What we feel they are getting is the bulk of the benefits that electrification would have delivered, in the sense that the journey time savings will still be available to them, the principal journey time savings being those between London and Cardiff. That is the main benefit and the Department for Transport has committed to ensuring that the £125 million that it was offering to the Welsh Government to support electrification in other parts of Wales, on the valley routes, for example, would continue to be available.

Chair: Thank you, Minister.

Q130 Liz Saville Roberts: Minister, you mentioned that there is a net benefit to electrification, which does beg the question: why not Swansea? The question I would like to ask is related to the fact that Wales has 6% of the rail network, 5% of the UK's population, yet only receives 1% of rail infrastructure funding. You also mentioned that lessons needed to be learned in the run-up to the situation where we are now. When are these lessons going to be learned and when are we going to have the infrastructure investment that we so desperately need?

Joseph Johnson: First of all, on the value for money aspect of the Cardiff to Swansea bit of the line, the revised benefit-cost ratio is really low. It is 0.28 approximately, which is not a level that the Treasury or the Department could justify for investments of this scale.

The Department looks at all potential transport investments systematically across the country, and where there are strong cases for investment they go forward for consideration. The lessons that we are learning from the examples in the control period 5 that have not worked are that we need to have a much tighter grip on capital allocation through Network Rail. That has become much more relevant in an environment in which Network Rail's borrowings are on the public books, which they were not when this programme was set out earlier on. The Department is gripping capital allocation and Network Rail is undertaking the gateway process for the release of funds in a much more rigorous way than it was before.

Liz Saville Roberts: Nonetheless, when I travel to Westminster I travel on infrastructure where the major investment was carried out by Telford.

Q131 Thelma Walker: Since 2011, the Government have changed their position on electrification to Swansea three times. How do you think this uncertainty has affected businesses and potential investors? It is giving



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out clear signals that there has been a lack of thought, a lack of investment in regional development or connectivity. What would you say about that in terms of the uncertainty?

Joseph Johnson: You are absolutely right. The Government position has changed progressively since 2009 to the Secretary of State's announcement towards the tail end of last year finally cancelling electrification of the segment to Swansea. That reflects, as you heard from Mark Carne, the way the cost estimates for this piece of work have ballooned by about 70% over the course of that period of time. The inflation of the cost has meant that the benefits simply do not stack up any more as the cost-benefit ratio of that segment, as I was saying, is now about 0.3.

Q132 **Thelma Walker:** Have we any evidence or impact assessment on the number of businesses or the types of businesses that possibly could have moved into the area and given into the local economy and maybe have been put off by whether it is going to happen or it is not going to happen?

Joseph Johnson: What we are emphasising is the fact that the principal benefits are still being realised through the electrification of the segment of the line between London and Cardiff. Those benefits principally consist of the passenger saving times, the journey saving times, that will still be realised and the greater flexibility that the operators will have with the introduction of the new state of the art bi-mode trains. We would not really accept the premise that there has been a loss of value to the community.

Q133 **Thelma Walker:** How would you know? Has there been any assessment done, any discussions with local businesses and business federations?

Joseph Johnson: We do have regular discussions with the Welsh Government on all aspects of the transport system, but I might ask my colleague if he is aware of any.

Brian Etheridge: We have not carried out any specific assessment of that. It is difficult to see why that would be relevant when this is merely the method by which the train is propelled. The benefits to Swansea are still being realised.

Q134 **Thelma Walker:** It can be relevant to a business that was thinking of investing in south Wales to think about connectivity and speed.

Brian Etheridge: The connectivity and speed remains with the process that we are now taking forward. Those things have not changed.

Q135 **Thelma Walker:** The bi-mode trains?

Brian Etheridge: The bi-mode trains.

Thelma Walker: Which are slower and heavier.



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Brian Etheridge: No, it will still maintain the same journey times that we would have done previously because of the layout of the track from Cardiff to Swansea. If I were someone investing in Wales, what I would be looking at is the fact we are providing brand new trains, state of the art trains, greater capacity. There will be a greater reliability as we go forward. Those are the things that I would be interested in. I am not sure I would be wholly concerned with just the method by which the train is being propelled.

Q136 **Thelma Walker:** Why did you not go for bi-mode trains originally then if they are so good?

Brian Etheridge: As this programme has continued, the great benefit that bi-modes give you is you do not have to electrify all of the railway all of the time. It was always envisaged that trains would move beyond the electrification on to unelectrified parts of the track. I appreciate we are talking about Wales at the moment, but there are lots of other parts of the Great Western route that are not electrified and will not be electrified. This gives you the flexibility to move between electric traction back on to diesel without losing the passenger benefits that we were after.

Q137 **Tonia Antoniazzi:** If I could come in there, Swansea, Neath and Port Talbot have the largest urban footprint in Wales, so it would be for the benefit not just of Swansea but beyond. What concerns me is we are hearing you have these bi-mode trains. I understand that we will not gain that much in time. There are issues around the infrastructure of the railway, of having to straighten the line maybe, of the number of bridges, so I understand why it has not been successful. What I fail to understand is why the area of Wales is being ignored. Is there a commitment that the Department for Transport can give to ensure that it is not the end of the line for electrification in Wales? People in Swansea feel, as I say, ignored and let down—and we need that for Swansea and west Wales.

Joseph Johnson: What I can tell you is that at the time the Secretary of State took the decision to cancel the electrification between Cardiff and Swansea he did commit to developing options with the Welsh Government to look at other ways in which passengers and the general Welsh economy could benefit from the significant investment that we are making as a Government in our rail system. There are a number of examples of the kinds of projects where we are keen to see whether there is a case for the development of an investment programme.

Q138 **Chair:** Minister, can I just throw your question back at you? I think your colleague has just said, if I understood it correctly, that the new bi-modal trains have more capacity, they are lighter and they are more reliable than the diesel models they replaced. In that case, why did we not just buy diesel models? We could have left out the electric bit and the electrification and saved ourselves £10 billion, couldn't we? Well, not £10 billion—£5.58 billion.



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Joseph Johnson: I think the answer to that is that there are stretches of track where it is going to be advantageous to have electrification delivering passenger saving times, environmental benefits and so forth. With bi-mode trains you have the ability to be more flexible.

Q139 **Paul Flynn:** Briefly, the line between Strasbourg and Paris used to take four hours. They built a new line. It now takes one hour and 46 minutes. One can understand that being a major benefit on time, but as the Chairman remarked, if it is a 15-minute improvement to get from London to south Wales if the train does not stop at major stations, what makes it a worthwhile investment?

Joseph Johnson: We estimate the net present value of the investment to be over half a billion pounds, and that is a significant value to the economy.

Q140 **Paul Flynn:** What goes into that? How do you reach that estimate of the benefit?

Joseph Johnson: These calculations always involve a complicated computation of all the benefits, the passenger saving times—

Paul Flynn: We will do our best to follow you.

Joseph Johnson: —netted off against the cost of generating them in terms of the infrastructure investment and so forth.

Q141 **Paul Flynn:** How big a factor is time on the train journey? One is taking a train journey. There are many factors: where the train is going to dump you, if you can park in town, if there are buses available, if it is the right time of day. There are a huge range of factors. What importance is time? Some train journeys I would go for a longer train journey because you can do some work on your computer.

Joseph Johnson: These are longstanding debates for transport investment analysis. I will pass to my colleague.

Q142 **Paul Flynn:** What is the conclusion of the debate because you are spending billions of pounds?

Joseph Johnson: The very crude conclusion is that there is a positive net present value of about half a billion pounds from the electrification of the London to Cardiff segment. It is a much less clear picture that emerges from the Cardiff to Swansea segment, as I said. The benefit-cost ratio there is barely positive at all.

Brian Etheridge: Time is very valuable. It is very valuable to us. Of course, that is multiplied by the number of people who enjoy that time saving. The greater the occupation of the train the greater benefit it has to the overall case. I think you said that we gain 15 minutes by not stopping at intermediary stations. That is not the way in which—

Q143 **Chair:** No, I did not say that. I said that the 15-minute saving is calculated partly by the fact that the trains would not stop in Reading and



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Swindon. There is a saving of 15 minutes, but part of that will be because the trains will not be stopping in Reading and Swindon.

Brian Etheridge: No, that is not our calculation. We still expect the trains to stop at those major points, or else you immediately lose the benefits of that number of people enjoying that time saving that you would get in the first place.

Q144 **Chair:** The *Western Mail* was reporting that you were going to take trains straight from Bristol Parkway to Paddington.

Brian Etheridge: There are already trains that go direct from Bristol Parkway to Paddington. The overall typical journey time saving is made because between Cardiff and London there is a much higher-speed track and you are able to enjoy the benefits that electric traction will give you, which you cannot between Cardiff and Swansea, because it is a much slower portion of track. You just cannot get to a position where you enjoy the benefits that electrification will give you.

Q145 **Paul Flynn:** The railway industry seems the source of implausible excuses: for the wrong sort of snow and for the wrong leaves on the line. I am trying to follow the Minister, and as far as I can understand he was saying it was the wrong kind of electricity that we are using, perhaps. I have no idea why this change has taken place. You said, Minister, that the figures ballooned. What happened is somebody miscalculated by an enormous factor involving billions of pounds. One minor error was that they did not count the number of bridges, knowing that there were lots of Victorian bridges that had to be raised and they were miscounted. I appreciate you have only been in office for a relatively short length of time and it is not your fault, but could you give us something that will convince us that this makes sense, first of all to invest on that level originally and then not to invest but announce that we have a bargain for you anyway? It sounds like snake-oil salesman stuff: all right then, the first medicine did not work so I will give you something else, and if this does not work out it is probably cheaper. Is that fair?

Joseph Johnson: I do not think we are in disagreement. The early cost estimates that Network Rail provided were clearly wrong by a very significant order of magnitude. They were out, it appears now, by about £1.2 billion.

Paul Flynn: It is a lot of money.

Joseph Johnson: The costs have ballooned, as I said, by about 75%. I thought Mark Carne was quite straightforward in terms of how he explains how they got it wrong. They used out-of-date comparisons. They did not take into account the way health and safety requirements are much tougher today than they were 20 years ago when we last did major electrification. Network Rail did not appear to take into account the complexity of the planning process as it now exists today, and a host of other factors that he mentioned. The bald truth is their estimates were massively wrong. We had to reset the programme in 2015 as a



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consequence when we realised how wrong those estimates were. Since then, Network Rail is more or less delivering the reset programme as it committed to doing.

Q146 Paul Flynn: There is a tradition in the town I represent and a practice going back a long time for certain valleys that are north of Newport to commute to Newport and do their shopping there. They can no longer do that because the train, while it touches the outskirts of Newport, the one from the Ebbw Vale area, goes on to Cardiff. People who were shopping and saw their urban centre as Newport for generations are now being diverted from the top of the valleys to Cardiff. Wouldn't that be something worthwhile to continue the traditional shopping and community patterns rather than electrifying a railway to no obvious benefit?

Joseph Johnson: I am not sure that that will change under the proposals that we are putting forward. I do not see why people's shopping habits should be affected.

Q147 Paul Flynn: It is extraordinary. As I say, I do not expect you to know about the details of this; it is a local thing. There is a practical solution, but there is a line that would go directly to Newport, which is used on certain occasions. The actual route of a new train, a train that was a freight-only line for many years and is now a freight and passenger line, has altered the pattern of local shopping and community life to the benefit of Cardiff. There is something that could be done about that. It is an obvious advantage. They can go either to Cardiff or Newport if a small change was made. Instead, there is this grandiose scheme that has fallen flat on its face with a gimcrack alternative—

Joseph Johnson: The Department is always keen to look at good suggestions for capital investment.

Paul Flynn: Okay, I will give you that to contemplate.

Q148 Chair: Minister, just to be clear, in the *Western Mail* on 17 April, Sion Barry, the journalist, wrote an article. He said by missing out the two stations and when electrification is complete, rail journey-time savings will be Newport to Paddington and vice versa 15 minutes. The implication is that the 15 minutes is partly due to the electrification but partly due to the fact that two stations are being missed out. I would guess that that would probably be at least half of the 15-minute saving. Is that a fair interpretation of the *Western Mail* article?

Joseph Johnson: I will have to ask my colleague, who is more on top of the technical details.

Brian Etheridge: I do not think that is a fair interpretation. I will happily check and write to the Committee, but we are not reliant on removing services. It would be a defeat for the business case. As I say, the simple fact is that it is not just journey times, say, from Cardiff and Bristol but also from Swindon and Reading, all of these things.



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Chair: One of the *Western Mail* journalists might be in the room, so he will no doubt pursue this further.

Q149 **Chris Davies:** I think it was very clear to understand from Mr Flynn's questions that Labour would not electrify the railway at all, so I am very grateful that this Government are doing that. Clearly, you said earlier, Minister, that lessons should be learned from what has happened over this process. I am just wondering what those main lessons will be.

Joseph Johnson: I think the main lessons are around making sure that Network Rail has bottomed out the cost of projects before they get green lighted and full commitments are made to funding them. Clearly, you find yourself on the hook politically for delivering benefits that you then find you cannot afford to generate. What is really important is that there is a much more rigorous process of developing cost estimates and then that the Department is much more rigorous in monitoring Network Rail's progress towards delivering on things that it is committing to do. Those are the principal recommendations that have emerged from the reports and the reviews that the Government have commissioned following the realisation that costs were growing out of control on this programme.

Q150 **Chris Davies:** This is probably a very unfair question for you considering that you have been in your post for a week, so perhaps I could direct it at Mr Etheridge. What would you do differently if you could start this whole programme again?

Brian Etheridge: It will be what we do differently in future.

Chris Davies: What would you advise a Minister if you were starting the programme again?

Brian Etheridge: We would advise the Minister not to go public on expectations, delivery dates, scope and cost without giving us the opportunity to have worked those through thoroughly. That will be the case going forward.

We will be looking at a pipeline of investments as we move into the next investment period. They will be punctuated by rigorous gateways, which means a scheme cannot pass to the next stage until collectively the Department, Network Rail and, ultimately, Ministers are satisfied that the analysis that we have done is robust and sufficient to take it to the next stage. That means, as has been explained to this Committee and previously to the Public Accounts Committee, we were dealing with immature schemes that were not thoroughly worked through. People had not understood the implications of these in terms of delivery times and cost. We can now see the complications and potential damage that that causes.

Before we commit to deliver in future, we will have a much greater level of assurance about the project we are pursuing, why we are doing it, the benefits it brings, how much it costs, and how long it will take to deliver. We look across the world now to see how other people have delivered



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these things so we have some other references to abide by. There is a much more stringent process before we would ask Ministers to agree to allow these projects to go forward.

Q151 Chris Davies: When you say you would not go public, do you think the biggest problem with the non-electrification of Cardiff to Swansea is not the fact that the people of Swansea will be missing out three, four, seven minutes, however long the journey time would have been cut going to London, but it was the fact that they were promised that and they feel aggrieved because it is not being delivered?

Brian Etheridge: Yes, I think that is absolutely the case. As we have said, we have begun to focus unhelpfully on what essentially is the method that makes the train go. We should start with what the benefits are that we are trying to bring and then what is the best way to deliver those. It is fair to say but extremely complicated to understand that there is no one size fits all here. It really does depend on the service pattern we are trying to provide, the rolling stock that we have, the topography, the gradient, the stopping patterns. All of those things will lead us to the best solution for the type of benefits we are trying to provide.

As someone already mentioned to this Committee, the East Coast Main Line has been electrified for a number of years, but we still run diesel trains all the way north of Scotland. If you are on that train, you would not know the difference. You would just know that you are investing in a reliable, timed journey that you can rely on and you can bank on if you want to do your business, your leisure travel or whatever.

Q152 Chris Davies: My last question. Minister, I do not want to let you off the hook completely. When you are a month into this position, and we wish you well with it, can you foresee allowing further finance to this project to oversee its completion and make sure that it now comes in on budget, it now comes in on time, and there are not other issues that are likely to spring up?

Joseph Johnson: Network Rail is delivering on the commitments that it has made since the Hendy reset, and we are confident that it will be able to complete the London to Cardiff segment in the time it has set out.

Chair: There are three people looking for supplementaries. I saw Liz Saville Roberts first.

Q153 Liz Saville Roberts: This is simply a question about a matter of principle. Those of us who travel in from west Wales, be that south, mid or north-west Wales, see a steady deterioration in the quality of the transport. We go from three-lane motorways down to two-lane motorways. We go to two-lane dual carriageways without a hard shoulder. We go from electric trains that then turn into diesel trains. This is the poorest nation of the United Kingdom. What commitment can you make to us about the cost of addressing that inequality that we are experiencing particularly in the western side of Wales, which the present arrangements for electrification are not going to address? We need



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improved transport links to improve our economy. What can you offer to us in the future?

Joseph Johnson: We understand the need to ensure that communities in Wales are benefiting from the investment programme that the Government as a whole are undertaking. We are investing at record levels and, as I said earlier, the Secretary of State is committed to working with the Welsh Government to explore a number of options for rail schemes that will be of benefit to passengers and the local economy in Wales. They include, for example, schemes that might help improve journey times between Swansea and Cardiff. They include improvements at Cardiff station, improvements at Swansea station, and a variety of other suggested bits of work. Obviously, we want to develop business cases and see whether they are right for investment, but we want to work with the Welsh Government to ensure that Wales benefits from those record levels of investment that we are undertaking as a Government.

Q154 **Ben Lake:** On that point, Minister, and on future capital investment in the network in Wales, we understand that the responsibility for the Wales and Borders franchise is to be devolved. Of course, in the future it will then mean that responsibility for the franchise will rest with the Welsh Government; that of capital investment in infrastructure of the rail network will be here in London. I was wondering what role you envisage the Welsh Government and Welsh Parliament playing when it comes to the development and future plans for the Welsh network.

Joseph Johnson: Devolution of the operators is continuing apace. We expect the Welsh Government to be in a position to award the franchise for the Wales and Borders franchise later this year. There are a number of bidders for that franchise, so that aspect of devolution is working well. We want to ensure that on the infrastructure and enhancement side we are delivering enhancements that are of benefit to communities in Wales. It is important that we get strong relationships between the Department for Transport and the Welsh Government and between Network Rail and communities in Wales to ensure that there is a real alignment of interests.

Q155 **Ben Lake:** I would agree because you have mentioned before further investment in Cardiff and Swansea. Although I welcome that investment, it does not really address the paucity of provision for the rest of Wales and perhaps ensuring that there is a formal role and an adequate dialogue between the two Governments when it comes to future plans to ensure that the rest of Wales receives some investment.

Joseph Johnson: Agreed.

Q156 **Glyn Davies:** I apologise if I have missed something, but I am just trying to get clear in my mind what the time saving is of electrifying the line from Cardiff to Paddington. It was certainly suggested by a journalist in a Welsh newspaper that the saving of 15 minutes is conditional on



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skipping a couple of stations. I think you have indicated to us that that is not the case and that the journalist is wrong. I do think it is pretty important to us. If it saves 15 minutes, it is 15 minutes, but if it is not 15 minutes, it is not. We need to have that absolutely clear. I would not want us to drift on without it being absolutely clear that the saving is 15 minutes and that includes stopping at the intermediate stations, not as was—

Joseph Johnson: We can commit to writing to the Committee to set out the nature of the time saving and how it is achieved.

Glyn Davies: Without that, you start to ask yourself in terms of time saving is it worth it. That is why I think that is absolutely key.

Chair: We appreciate that. That would be very helpful if you could. Thank you.

Q157 **Tonia Antoniazzi:** I want to ask the Minister what the implications are for Network Rail and the progress of electrification in Wales now with the collapse of Carillion.

Joseph Johnson: We have obviously been undertaking a significant amount of work over recent days putting in place contingency plans across all of Carillion's activities, including its activities on the Great Western Main Line. We do not anticipate there to be a high likelihood of disruption, and we have already checked carefully with Network Rail as to the contingency plans that it is putting in place for work that it is undertaking. We understand that it has already, where Carillion is operating in a joint venture with other entities, required those joint venture partners to step in and complete the work that Carillion would have been undertaking.

The long and short of it is contingency planning has been under way for a considerable period of time. Those contingency plans have now been activated and we are confident that there will not be disruption to core programmes.

Q158 **Liz Saville Roberts:** We have been discussing bi-mode trains already and we have been told that they are heavier than electric trains and less powerful than diesel trains. A previous witness, Roger Ford, told us that bi-mode trains were a cheap way out of an embarrassing problem of state-owned Network Rail making a complete mess and putting up costs by a factor of quite a few. How could you respond to what he has told us?

Joseph Johnson: Bi-mode trains are a new technology. The new Intercity Express trains that are going to be operating on these lines are state of the art trains. They are going to be providing significantly more seats into Paddington. I think it is about 40% more capacity for passengers. That will mean more chances of getting a seat, a more comfortable journey, more tables. These are modern trains. They have charger plugs close to pretty much every seat. They have more tables and they have USB ports. These are state of the art trains. I think



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passengers are going to enjoy travelling on them. They are a real upgrade on the old InterCity 125 trains they are largely replacing.

- Q159 **Liz Saville Roberts:** Forgive me for being so blunt, but if they are so good can we expect to see the general cancellation of electric trains and their replacement with bi-modal trains across the country in that case?

Joseph Johnson: As we have been saying, this is not necessarily a one-size-fits-all situation. There are going to be situations and lines where full electrification is cost effective and where it is value for money for the Government to invest in the full electrification of a line, as has already taken place on several lines in the country. There you would not expect us to reverse track and go back to diesel or to introduce bi-mode trains because there would not be any benefit in doing so. It is about how we can most efficiently deliver the passenger benefits. There are going to be circumstances where bi-mode trains and partial electrification is going to be the answer, and this is one of them.

- Q160 **Tonia Antoniazzi:** I travel on the new bi-mode trains every Monday. I have been speaking to staff on the railways and they have told me that there were at least 70 snag faults on the new fleet and that a significant number had to be taken out of service. This concerns me not only as a passenger but as MP for Gower. What are the health and safety regulations and do you have data to be shared? I would like to know for my constituents.

Joseph Johnson: I do not have it off the top of my head but my colleague might be able to point us towards it.

Brian Etheridge: Sorry, I do not have the data. I think this is normal for new trains that are introduced. These are snagging faults each time. This is not a massive number of trains that have suddenly been parted on the network. They are being introduced on a week by week basis. We would expect Hitachi to work through these faults and to deal with them.

- Q161 **Chair:** Mr Etheridge, you obviously have been in position for quite a while so you will have read the National Audit Office report into all of this. You must be aware that when the Minister spoke about the business case earlier on the NAO has said it was originally 2.4:1. Then they changed that following the increase in costs to 1.6:1. They go on to say that that 1.6:1 has not taken into account the decision to procure bi-modes and that the decision to do that calls into question whether the full extent of electrification is still value for money. Is it likely that at some point we are going to find out what the Department thinks the business case is when one takes account of that decision to purchase bi-modes?

Brian Etheridge: I think the PAC was actually talking about the Cardiff to Swansea element of this and the cost that that involves. You would expect us to keep reviewing the business case and to make sure that—

- Q162 **Chair:** Yes, but I am talking about the National Audit Office report. Section 7 is not referring to Cardiff to Swansea. This appears, as far as I



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can see, to be looking at the whole overall modernisation. Have I missed something?

Brian Etheridge: My understanding, having worked through that report with them and having attended the PAC, was that it was the very fact that the Department was looking at the incomplete parts of electrification, particularly Cardiff to Swansea, that led us to have concerns about the cost-benefit for that particular element. In many ways, the announcement that was made by the Secretary of State last year was in reflection to that recommendation.

That report is also very clear about the additional cost to the Department of introducing the bi-mode trains, and that is beyond the cost of asking Hitachi to change the order through to the additional running costs and the additional infrastructure that we would need to put in place in some platforms to make that happen. That is £330 million according to the NAO's calculation.

Q163 **Chair:** You are obviously very familiar with the report—more so than I am—so you may well have a better grasp of this than me. But my reading of this section of it is that they did not fully cost the benefit-cost ratio following the decision to purchase bi-modes. In other words, the 1.6:1 is pre the decision to purchase bi-mode trains. Have I misunderstood?

Brian Etheridge: I do not think it is pre the decision, but you may be correct and they have not taken it into account. The latest departmental calculation of this is that the benefit-cost ratio for the whole of the modernisation of the Great Western route is still greater than one.

Q164 **Chair:** Still greater than one? If it was less than one, it would be very bad indeed, wouldn't it?

Brian Etheridge: Indeed.

Q165 **Chair:** How much greater than one is it?

Brian Etheridge: I think the latest is 1.13. Of course, that is reflecting, as you and the NAO and the Public Accounts Committee have highlighted, the significant increases in cost. The moment that happens you are bound to get a deterioration in the overall benefit-cost ratio.

Q166 **Ben Lake:** Minister, your predecessor was very keen to move away from our dependency on diesel rolling stock. Do you share his concerns about air pollution from diesel carriages?

Joseph Johnson: Of course we want to reduce greenhouse gas emissions and carbon emissions throughout our economy, and wherever it is possible to do so in a cost-effective way we are. One thing that is worth stressing about the bi-mode trains is they are very modern technology. They have a capacity to reduce emissions that is far greater than the conventional diesel trains we are all familiar with. They have state of the art catalytic converters, which I understand convert the NOx



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into water, for example. They are compliant with the most demanding and up to date standards in terms of emissions. They are not the heavily polluting diesels of yore.

- Q167 **Ben Lake:** Would I be correct to assume, therefore, that when it comes to the line between Cardiff and Swansea, for the foreseeable future we have missed the opportunity to perhaps reduce our emissions even further and that bi-modes will be the answer for the foreseeable future?

Joseph Johnson: That is certainly the case as it stands at the moment. The Secretary of State's decision last year made clear that we will not be electrifying that final segment, and it stands to reason that we will be using the bi-modes in their diesel form for that bit of the line.

- Q168 **Tonia Antoniazzi:** In light of cancellation of electrification, you said about being open about revisiting or looking at different options and working with the Welsh Assembly. I was wondering if you were aware of some work by Professor Mark Barry from Cardiff University about the proposal for a Swansea metro system. Obviously, you have only had a week in post.

Joseph Johnson: I am familiar in very high-level terms with the ideas that the Welsh Government are developing around how they can use the new devolved system. I understand that the Swansea metro system is one idea that is being looked at alongside others.

- Q169 **Tonia Antoniazzi:** My colleague Geraint Davies is not here today. He has written to you to ask you to consider that as well. If you could, that would be great.

If you were going to look at a different route, can you talk us through any work that would be involved in changing a route specifically from Cardiff to Swansea? Do we need to change the route from Cardiff to Swansea?

Brian Etheridge: As I understand it, the proposal is that you would reroute the existing Great Western route to come into Swansea docks instead of taking that huge turn north to Neath, then back around south-west into Swansea. On the face of it, that is feasible and could be attractive. From our perspective, we would worry about suddenly having a very fragmented service to Swansea. The downside is if that were the new station in Swansea going back out to stations like Llanelli, it would take even longer, or if you had two stations you would suddenly be disconnected. Potentially, it is something we would look at but, on the face of it, it is difficult to understand the benefits that that would bring.

- Q170 **Tonia Antoniazzi:** It is also to look at using the best service as well, and maybe a tram service that would integrate into that to service Neath and then Llanelli and further out.

Brian Etheridge: Indeed. We have been conscious of a number of proposals that would effectively cut out Neath. At the moment, Neath and Swansea are two of the busiest stations there, so obviously it would be



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something in terms of the overall transport provision that we would be worried about.

Q171 **Tonia Antoniazzi:** Would you be able to support the Welsh Assembly Government in looking at a feasibility study for this to enable it to move forward as soon as possible?

Brian Etheridge: I think it is a matter for the Welsh Assembly Government, but as we have stated before, we are more than ready to assist people to look at the options.

Q172 **Glyn Davies:** Minister, it is a bit unkind to ask you to indulge in any blue-sky thinking. Mind you, it might be the best time to do it when you are starting in the new role. I think the position of the Government is that we see new battery technology and alternative fuels—that probably means hydrogen—being used to power trains in the future. Can you give us any idea of what your thinking is on these technologies? Are there any alternative technologies in mind that you anticipate coming forward?

Joseph Johnson: There is a clear need for innovation in our rail system. It stands to reason that it should be innovating at the same pace as other bits of our transport system. We see really exciting innovations in the development of the automotive sector. We would want to see a similar pace of innovation in our rail system. We are seeing some pilots of these innovative technologies in parts of the country. There was a pilot of battery-powered trains in East Anglia recently. Germany has seen some hydrogen-powered trains. We want to see much more of this in the system. One of the things the Department for Transport could and possibly should be doing is to see what more support it can be giving to innovators in the rail system.

Q173 **Glyn Davies:** It would be quite useful perhaps if you could give us a note about one or two examples of where there has been innovation that we as a Committee could look at. I think it is a really interesting field as well. We had a previous witness come before us and tell us that hydrogen-powered trains and battery technology are completely unsuitable for big trains going fast—I think that is the phrase that he used. When you have one witness telling you that is not going to work, it is quite useful to us if we know of some examples where we can look to decide for ourselves. Do you have a list anywhere of one or two examples that we could go and look at? Germany is probably a wee bit far for the Committee, Chairman, is it? I am not sure. There is nothing like seeing where it is operating to know what is feasible.

Joseph Johnson: Yes, we are happy to provide some examples.

Q174 **Glyn Davies:** Do you have any idea when you might expect some of these technologies to be—I know it is difficult because it moves so quickly. Battery technology especially is developing very quickly. Is there anything we can hold you to in terms of delivering at some stage in the future?



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Brian Etheridge: I do not think we have a fixed date. What I can tell you is that there are a number of train operating companies who are very actively looking at these alternatives. Some of these are subject to commercial conversations, but it is not an unrealistic prospect at all, I do not think. Again, maybe it is difficult at this stage to envisage a fully battery train, but just think again about filling in parts of the network that are not electrified or which are very difficult because of the topography or terrain to electrify. It is not at all inconceivable to think of a train going for quite a bit of its journey either on diesel or electric and following on smaller parts with battery top-ups. Again, it is very much dependent on the route and how much precedes that that they can charge up the batteries. This is a potentially very exciting and very realistic development in the rail industry.

Q175 **Glyn Davies:** Are there any innovative projects that we could look at? We are probably running out of time for this report, but I think as a Committee once you get into a subject like this you develop an interest. I would certainly be interested in looking at one or two examples of genuine innovation.

Brian Etheridge: Yes, there is an example in the UK. I am sure we could research some examples for you to follow up.

Glyn Davies: That would be helpful.

Q176 **Tonia Antoniazzi:** The Welsh Government say that £700 million was being saved by cancelling electrification to Swansea. With some new-in-post blue-skies thinking, would you consider ring fencing this money for a Welsh rail project like the Swansea Bay Metro or straightening the line to Swansea?

Joseph Johnson: As I said, we are always open to good investment proposals from any part of the country. Obviously, we are looking with great interest at ideas that come from Wales, and the Secretary of State is committed to working with the Welsh Government to look at various options. I mentioned one or two of them: improvements to Cardiff station and Swansea station, faster journey times between Swansea and Cardiff, and so forth. There are a variety of other ideas. These all need to be worked up into business cases to see if they can pass the rightly demanding value for money tests that we have as a Department.

Q177 **Tonia Antoniazzi:** How much money did the Government save by cancelling this project?

Joseph Johnson: We do not estimate it to be as close to the figure you quoted. I think it is more in the order of £430 million-odd. Is that about right?

Brian Etheridge: Yes. Again, in the NAO report, that is the estimate of the final cost of that scheme.

Q178 **Liz Saville Roberts:** Now we have returned to the Swansea Bay Metro



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project, I would hope that the Minister—and I do appreciate that you are new in post—is aware that the site that would be required for the Swansea Bay Metro to function effectively is also the site that has been identified by the Department of Justice for building an unwanted—in terms of Wales—super prison. Would he commit to have discussions? These sorts of matters need to be joined-up thinking between Departments within the Westminster Government.

Joseph Johnson: Close co-ordination between Departments in Westminster and the Welsh Government is always helpful, and this sounds like it is a good example of that.

Q179 **Ben Lake:** To come back on using some of this money that is saved, whether it is £430 million or £700 million, for Welsh rail infrastructure projects—and to be incredibly parochial—the Welsh Government have funded a business case for the Aberystwyth to Carmarthen line. In terms of dialogue between Welsh Government and the Department for Transport, how are decisions made when it comes to capital investment in the Welsh railway network in this particular instance?

Joseph Johnson: One of the projects that we are looking at at the moment includes direct services from Pembroke Dock to London via Carmarthen on these new trains we mentioned. I am not sure if that is what you were referring to.

Q180 **Ben Lake:** Not quite, no. The Aberystwyth to Carmarthen rail will be north-south. The Welsh Government have conducted a full feasibility study and I think we can expect them to report back imminently.

Brian Etheridge: This is reflecting the general division of starting-up projects. When projects are regional or local such as this, we expect regional stakeholders to do the initial, “Is this worth doing?” As the Minister has said, we are on the lookout. We have made it very clear in the most recent departmental strategy that we are on the lookout for new lines that particularly improve economic growth and give housing opportunities. The proviso that we have heard is it is and always will be subject to them having a very strong business case. Again, we are very happy to continue discussions with the Welsh Government about how that might fit into a future pipeline.

Q181 **Glyn Davies:** It is not blue-skies thinking but it is looking forward into the future, bearing in mind we just had a Wales Act. What prospects are there for devolving more responsibility for rail infrastructure to the Welsh Government?

Joseph Johnson: We are in the process of devolving the franchise system, the operating system, to the Welsh Government. That is going well. As I said earlier, we expect that franchise to be awarded later this year.

On infrastructure, this is a system. I think that is what makes it different. The entire country operates as a system, and it is important that we take



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into account the views of the Welsh Government and the needs of Welsh communities in allocating infrastructure capital and enhancement capital across the system. We would not want to lose the value that comes from it being operated as a co-ordinated system. I think that would start to get lost if you broke up the infrastructure into component parts of the country.

Q182 Liz Saville Roberts: Nonetheless, that is at odds in the way that rail infrastructure is managed in the other nations of the United Kingdom. Why does that have to be the case for Wales? I must reiterate the fact that we receive considerably less funding per head of population and for the amount of track that we have. This is an anomaly that is, frankly, intolerable.

Joseph Johnson: On the funding point, which we addressed earlier, we are always keen to invest in strong projects. We want to work with the Welsh Government to develop some of the ideas that are on the table at the moment so that they can get in a state where there is a convincing business case. That is the priority for us.

Q183 Paul Flynn: Having lived through a time when diesel trains were state of the art, much to the regret of those who saw the demise of wood-burning trains and coal-burning trains, then we find we go to the miracle of trains that bent at corners. They leaned at corners if you remember, but the unfortunate thing was that they actually hit things when they were leaning on corners. Having seen so many bad ideas and state of the art ideas, it does seem to me now that electric translates as modern, new, wonderful, whereas you can put power points into other trains anyway. We do seem to have gone into this in a way that is financially incompetent in measuring the costs and benefits of the investment. The investment seemed to be enormous, but the benefit is small, as the Chair has pointed out. As a fresh brain in your Department, and you have people like Toby Young available to help you—he has no job now—I am sure we could have an inspired a brand new future for you in making sure that before anyone spends billions of pounds somebody works out what the advantages are.

Joseph Johnson: The London to Cardiff segment should be completed, all things going well, by the end of this year, so that money is well on its way to being spent. Obviously, the whole lesson of this experience is that we need to make sure that the costs of these projects are properly bottomed out before we commit to them. That is one of the strongest lessons and that is the lesson of the NAO report. The Department has learned that it needs to monitor Network Rail much more closely for the delivery of them and to have proper staged gateways before more capital is released to these projects.

Q184 Chair: Am I right in thinking that a benefit-cost ratio of 1.13 would be officially classed as low value for money according to Government advice and guidance?



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Joseph Johnson: Yes, it is not great.

Q185 **Chair:** What we have is a low-value project here?

Joseph Johnson: It is still positive. We should not lose sight of that. As it stands today, it is still generating a net present value of over half a billion pounds, but obviously that is on the back of a very substantial investment of around £5 billion or so. It is not a massive return on that investment. It is still positive.

Q186 **Paul Flynn:** It is only positive if it goes as planned. We heard yesterday some things that did not go as planned. Carillion did not go as planned. Cock-ups are guaranteed.

Joseph Johnson: We are well on the way to completion of this segment of the project, the London to Cardiff segment. As I said, it should be completed, all things being well, this year, so we anticipate being able to deliver on the benefits that it promises.

Paul Flynn: We look forward to interviewing you in a year's time.

Chair: With a new Minister I am sure it will all come to pass.

Paul Flynn: It will all change, yes.

Chair: Thank you very much indeed.

Joseph Johnson: Thank you.