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House of Commons
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Dear Mr Merriman MP

Transport Select Committee Infrastructure Inquiry

I was pleased to give oral evidence to your Committee on 12 May 2021, as part of the inquiry into *Major transport infrastructure: appraisal and delivery*. I hope my oral testimony and our written evidence is helpful to your consideration of this important subject.

At the session, I agreed to write to the Committee on several issues, and I set out this information overleaf. In addition, we have separately contacted the Member of Parliament for West Dorset to address his concerns regarding safety on the A35 in Dorset. We take those concerns very seriously and the safety of everyone who travels or works on any of our roads is our top priority.

If the Committee would like further information on any of these points or any associated issues, please do get in touch.

I look forward to the Committee's report and recommendations.

Yours sincerely



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Highways England's delivery of major infrastructure investment

The committee asked for further information on Highways England's performance in delivering major infrastructure projects over several financial years. The first Road Investment Strategy (RIS1) covered the period 2015 to 2020.

Highways England delivered against the overall objectives of RIS1 within the available £15bn funding envelope. Within this period, Highways England delivered efficiency savings of £1.4bn, against the key performance target of £1.2bn agreed with government. The road improvement schemes that opened for traffic during RIS1 delivered an economic return of £4 for every £1 invested.

On Time

In 2020, the Office of Rail and Road (ORR) published a report¹ ('Annual assessment of Highways England – end of Road Period 1') that assessed Highways England's overall delivery of RIS1, as part of our governance process.

The report concluded that Highways England completed 36 of the 37 road improvement schemes that were committed to open for traffic in RIS1, with a further 31 in construction. The ORR noted that of the 36 road improvement schemes that opened for traffic, 83% were delivered early or on time. Of those projects that were delayed, the main challenges to delivery were in the pre-construction phase and we have looked to build learnings from this into RIS2 (2020-2025).

On Budget

The overall capital investment portfolio in RIS1 was underspent by 1%. Within the portfolio, some road enhancement schemes cost more than originally forecast and some cost less. The main reason for scheme costs changing is due to the relatively low level of scheme maturity in those cases. Again, this is a key learning for RIS2 where we are starting from a position of much greater confidence in the scoping and costing of schemes.

It should be noted that although some projects cost more than originally forecast, all 36 completed RIS1 schemes were delivered within the upper limit of their estimated cost range.

Lessons learned for RIS2 and RIS3

Delivering major road infrastructure is challenging and it is important to learn lessons from every project that we deliver, as well as at the capital portfolio level.

The road improvement schemes we are taking forward in RIS2 have been developed to a higher level of maturity compared to those in RIS1, where Highways England essentially delivered from a standing start. The continuity afforded by five-year RIS periods, along with the experience and skills now within Highways England, has helped us to reduce some of the challenges and risks we faced in RIS1.

We would also reflect that within the framework of five-year RIS periods, it is important that the governance around the capital portfolio includes some flexibility to ensure that

¹ The ORR Report 'Annual assessment of Highways England – end of Road Period 1' (HC485),

the road enhancement schemes we are delivering remain the right ones and continue to represent value for money to the taxpayer. During RIS1, Highways England reviewed its capital programme for these reasons, and to ensure that we minimised disruption to motorists and freight on key routes.

As part of our work to drive more efficient project delivery, Highways England has also analysed RIS1 schemes that had taken longer to deliver or cost more than expected. We concluded that in most cases delays and cost increases could be attributed to the pre-construction phase of the project and the maturity of the cost estimates and project scoping. We have looked to address these challenges in RIS2 by ensuring that schemes are developed to a greater level of maturity and supported by an enhanced procurement approach, which is more focused on outcomes and collaboration with the supply chain. As part of our planning for RIS3, we have identified 32 pipeline projects that we will analyse and develop to an appropriate level of maturity in RIS2 to determine which ones could be included in RIS3.

Impact of the Green Book review on RIS3

The Green Book review will help to inform the continued evolution and growing maturity of Highways England's approach to developing the evidence base that underpins investment choices in the SRN. The review of the Green Book reinforces the importance of economic appraisal and ensuring public value from Highways England's investments. It also recognises the need to strengthen the culture around business cases development and the need to meet clear strategic objectives. This builds on the importance already placed upon analysis and analytical capability in Highways England.

Through the development of RIS2, Highways England already has in place the key elements of a strategic decision-making framework. RIS2 was developed through extensive public engagement and consultation, research and evidence gathering. It has been the biggest exercise ever undertaken to inform national road investment and build an informed picture of the current performance of the network, future pressures on it, and the opportunities for improvement.

Looking ahead to future road investment programmes beyond RIS2, we will build on this approach to develop investment strategies that are underpinned by a robust and authoritative evidence base. As with RIS2, which is a balanced portfolio of transformative projects and smaller-scale interventions, we would expect future road investment strategies to consider strategic investments, as well as those based on existing network performance.

We are working with DfT in the development of Transport Analysis Guidance in response to the Green Book review. We understand that the updated guidance will put more emphasis on the development of strategic objectives, on place-based and distributional impacts of transport schemes, as well as the context of transformative change. Highways England will continue to ensure its analysis and appraisal remains aligned with the Department's guidance.

Regional benefits of RIS2

Highways England is responsible for the SRN, which we operate, maintain and improve as a national infrastructure asset that connects and benefits the whole country. This means that we do not plan on the simple basis of individual roads, but look at the performance of strategic routes that connect the country, making sure the whole end to end route runs smoothly and safely. One bottleneck can have a negative impact on people and businesses in other parts of the country, as well as locally. The Catthorpe interchange was identified as one such bottleneck, which was leading to both congestion and safety issues. The junction, where the M1, M6 and A14 meet, was upgraded between 2014 and 2016, improving journeys for more than 150,000 vehicles every day.

Highways England has carried out extensive economic analysis as part of the development of the evidence base that underpins the investment choices set out in RIS2. In July 2020 we published a report² that set out the results of a range of economic analyses to assess the value for money (VfM) of Highways England's work in RIS2.

The analyses include:

- Operational expenditure to support the day to day control of flow and availability of the SRN.
- Renewals and maintenance to support the delivery of a safe and reliable network.
- Major capital enhancements – investment to complete major enhancement schemes started in the first Road Period, and start new enhancements announced in the DfT's second Road Investment Strategy (RIS2).
- Small scale schemes and projects supporting wider environmental, economic and social objectives through designated funds to address particular issues on the existing road network.

Our regionally balanced investment programme for RIS2 will connect our regions, create and protect jobs through construction and better connectivity and boost the economy. We have not undertaken a detailed analysis of exactly where regional benefits will accrue, but we are confident that RIS2 will improve lives and livelihoods in every part of the country. As I mentioned in my oral evidence, the Lower Thames Crossing, whilst based in the South East, has been identified as a strategic piece of complex infrastructure that will bring benefits across the country. It will improve the connectivity, particularly for freight, from the ports in the south to the major hubs in the midlands and beyond. As we develop our evidence base for future road investment strategies, we will consider whether we can strengthen our analysis in this area.

A303 Stonehenge opening

² https://highwaysengland.co.uk/media/vs3h1jx2/gfd20_0072-economic-analysis-of-rp2-brochure_v4.pdf

The planned open for traffic date for the A303 Amesbury to Berwick Down (Stonehenge) road improvement scheme is the second half of Roads Period 3 (RP3 – 2025-2030). Details of the timings for the scheme will be confirmed in our annual Delivery Plan Update this summer and we will send the Committee a copy when it is published.

Operations and maintenance

We noted that in the subsequent oral evidence session, it was incorrectly asserted to the ORR witness that Highways England would be investing half of the £27.4bn RIS2 settlement in consultancy and strategy, rather than infrastructure. In my oral evidence, I was clear that Highways England would be investing nearly half of the RIS2 settlement in operating, maintaining and renewing the SRN, which is quite different to ‘consultancy and strategy’.

Our operations, maintenance and renewal work are essential because they keep the SRN and related structures operating efficiently and safely. This includes the day to day running of our network such as ensuring traffic officers are out on our roads to support motorists to keep them safe and the traffic flowing. It also covers general maintenance such as the upkeep of lighting and signage, improving drainage to reduce the risk of flooding, refreshing road markings and other safety features, as well as ensuring drivers have good visibility of the road ahead by regularly cutting back vegetation. Where the responsibility falls to Highways England, we ensure that the environment alongside the network is kept clear of debris and litter.³

Our renewal work also ensures that the network is kept in good condition, improving both the safety and the performance of the road. Examples of these works include the over £400 million investment in our biggest ever programme to rebuild and revitalise our concrete roads in England. As part of this programme, some roads will have their lifespan extended for 10 years by repairing potholes and cracks on the road surface. Others will be reconstructed, replacing the old surfaces with a new, modern road surface that will last for up to 40 years and will be easier and quicker for us to repair in future.

Elsewhere, this year we are investing £8m in safety and journey improvements along the A64 in North Yorkshire. This follows £26m invested in that route over the last two years, tackling flooding, unsafe junctions, resurfacing and speed management and creating a better journey for road users as well as a nicer environment for communities alongside our road.

In August we will complete work on a major £30m operations scheme on the A69 at Bridge End junction in Hexham, Northumberland. This will create a new junction, with two new bridges and a new stretch of carriageway, to improve journey times, reduce congestion and improve safety.

³ Whilst Highways England is responsible for the maintenance of the entire SRN, Under Section 89 of the Environmental Protection Act 1990, local authorities are responsible for litter picking on all A-roads.

Investing in the SRN

In his closing question, the Chair asked the IPA whether Highways England should have to compete with local authorities and others for infrastructure funding. I wanted to take this opportunity to respond to that question, given that it related directly to Highways England.

The establishment of Highways England and five-year RIS periods has delivered many benefits for the country, including our ability to:

- Plan for the long-term
- Drive efficiency through effective management of a capital portfolio and procurement
- Build a more informed and detailed evidence base of where to invest in the network
- Take a route-based approach to investment to ensure that our roads continue to serve the whole country; and
- Promote consistent standards of safety across our network.

We will build on these strengths in future RIS periods and we would reflect that a centralised approach to operating, maintaining and improving a national infrastructure asset delivers significant benefits. It is, of course, essential that Highways England delivers value for the public money we receive, and we are held to account for our performance in this regard by the ORR and government. In RIS2 we have a challenging target to deliver over £2bn of efficiency savings that will, in part, be realised by taking forward our work as a national programme. This will enable us to deliver more for the public funding we receive.

We work closely with regional partners, including combined and local authorities, sub-national transport bodies and others to ensure that regional priorities are reflected in the development of our evidence base that informs future investment decisions.

Net-zero

Finally, as time did not allow us to cover this topic, I wanted to pick up on a question that was put to members of the subsequent panel about whether the Government's record investment in strategic road funding was in line with their commitments to meet the net-zero carbon target by 2050.

Roads will continue to provide essential connectivity in a net-zero economy. Data shows that 89% of all freight is moved by road in the UK⁴ and we expect that trend to continue, along with increasing demand for non-freight road journeys. It is therefore essential that we decarbonise the strategic road network and Highways England's work in line with the government's net-zero commitments.

⁴ <https://dataportal.orr.gov.uk/media/1945/freight-rail-usage-and-performance-2020-21-q4.pdf>

This is a priority for Highways England we will publish our 'Net-Zero Highways: 2030-2040-2050 plan' later this year. The plan will set out how Highways England will:

- Decarbonise our own activity
- Decarbonise construction and maintenance through our supply chain and procurement processes
- Support the government's aims of decarbonising road use by moving to low emission vehicles.

We will share a copy with the Committee when it is published. We are already making progress in this area, and have started work on a range of pilot projects, which could help to reduce carbon emissions elsewhere in the future. These projects include:

A590 road surfacing scheme – our first carbon neutral road improvement scheme

The recently completed A590 road resurfacing scheme in Cumbria (J36 to Brettargh Holt) was the UK's first carbon-neutral minor works scheme and included:

- Solar-powered generators to provide energy for site lighting, signage, CCTV and catering facilities
- Electric site vehicles, powered by our solar powered generators
- On-site mixing of material to avoid over 6,000 HGV journeys which otherwise would have been needed to transport materials to and from site
- Early collaboration between the construction team to share ideas and to model carbon potential savings
- Recycling of over 63,000 tonnes of material for re-use in the scheme and an adjacent project.

E-van centres and rapid charging points

Highways England is actively supporting the uptake of electric vehicles on the SRN. Between 2015 and 2020 we funded the installation of charging points across the network to ensure that over 95% of the SRN was within 20 minutes of a place to re-charge.

In RIS2 we are investing £12m to help achieve Government's Project Rapid which aims to have at least six rapid charging points in every motorway service area by 2023. We are exploring with the Department for Transport how we can go further in support of rapid-charger rollout across our network.

Given the significant commercial traffic on our network, we have invested £12.5m to promote and support the uptake of electric vans by local businesses. The Highways England scheme funds fleets of vehicles for local authorities, which allows businesses to try electric vans for two months to encourage them to go on to purchase or lease their own electric vans. Research shows that this is expected to help overcome hurdles that otherwise would prevent businesses from making the switch to electric. The scheme directly demonstrates to businesses the practicalities and savings that are associated with electric vehicles and helps to overcome any pre-purchase anxieties businesses may have.

Switching Highways England's fleet to zero-emission vehicles

We are already transitioning our fleet of traffic officer vehicles and maintenance inspection vehicles to plug-in hybrid electric.

A43 Resurfacing pilot

On the A43 in Northamptonshire, we are testing a pioneering new material that is designed to help roads last significantly longer. The SRN is currently expected to be resurfaced every 10-12 years because water, sun and air, combined with the weight of heavy traffic, causes the surface to deteriorate and crack. However, laboratory tests have shown that an innovative blend of materials can help extend the life of the road surface and require fewer repairs which could lead to lower carbon emissions caused by maintenance work.