

**Licensing Manager**

Email:

**By email only**

Head of Regulatory Compliance & Reporting  
Network Rail Infrastructure Ltd.  
The Quadrant  
Elder Gate  
Milton Keynes  
MK9 1EN

24 June 2025

Dear [redacted],

### **Regulatory position – Project Reach**

1. Thank you for your letter of 20 June 2025, describing Network Rail's proposals to upgrade trackside fibre and install neutral-host wireless infrastructure as part of Project Reach. Your letter states Network Rail intends to enter into an agreement with Neos Networks Limited and Freshwave Facilities Limited to deliver the project. You have asked us to note your assessment of the project's licence compliance.
2. We note that the focus of the project is on renewing existing telecoms cables to meet the future needs of the railway network. As with all of Network Rail's activities, it is for Network Rail to satisfy itself that this initiative complies with the obligations in the network licence.
3. Your letter, attached at Annex A, outlines your consideration of regulatory issues and your assessment as to whether the project meets particular obligations in your network licence. As part of our continued engagement with you on this project, we have raised topics relating to licence conditions on financial ring-fence, land disposal, cross-subsidy, as well as safety and operational matters. We have provided comment on these considerations below.
4. We note your assessment of compliance with your licence obligations and, based on the information provided, we have not identified any current licence compliance issues at this stage of the project. As the project proceeds, circumstances, facts or conditions may change or emerge in relation to Network Rail's licence conditions. We would therefore expect Network Rail to inform ORR of how it will maintain regulatory compliance.

#### *Condition 16 (Financial ring-fence)*

5. You have noted that Project Reach is focused on the renewal of current telecoms cables used for the operation of the railway. You have assessed this as falling within the scope of Permitted Business, as defined in the network licence.

6. We note that Network Rail is contributing [redacted] towards capital expenditure over Control Periods 7 and 8. The Full Business Case has recently received formal Government approval.

*Condition 17 (Land Disposal)*

7. You have noted that Project Reach will involve the installation of equipment on Network Rail's land and the granting of certain property rights. Any grant of property rights falls under Condition 17 of the network licence, under which Network Rail can dispose of land where the disposal is required by or under any enactment, or with our consent.

8. We note your assessment of each asset type involved in the project at Appendix C of your letter. You have assessed that where there are Condition 17 considerations for assets that will be owned by the Concessionaire, these would fall within our General Consent. You have also confirmed that the new cables will be transferred to Network Rail's ownership.

*Condition 19 (Cross-subsidy)*

9. Condition 19 of the network licence prohibits cross-subsidy from any affiliate or related undertaking of the licence holder. We note your confirmation that there is no intention for a new affiliate or related undertaking of Network Rail to be set up to facilitate Project Reach.

*Safety and operational considerations*

10. We note your considerations in relation to safety and operations. We would expect further information to be provided to ORR on the contracted scope of the project once the build and design phase is entered into. Any material changes which affect safety should be considered through Network Rail's established change management processes.

11. Please keep us informed if there are any material changes to the project scope or delivery timescales which may affect safety and operational considerations.

Yours sincerely,

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Planning & Regulation Team  
The Quadrant  
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MK9 1EN

**By email only**

20 June 2025

Dear [redacted],

**Regulatory position - Project Reach**

***1. Introduction***

As part of Network Rail's strategy to build a safer, more modern, and digitally connected railway, Project Reach will attract significant private sector investment to upgrade trackside fibre and install neutral-host wireless infrastructure, reducing reliance on government or passenger subsidies. This will future proof Network Rail's fibre cable requirements and improve mobile coverage in selected tunnels and deep cuttings. The project will deliver a high-capacity, resilient fibre network that supports the transition to a digital railway. It will also address some of the worst mobile coverage blackspots along the network and enhance mobile connectivity at 12 Network Rail-managed stations for both passengers and staff.

***2. Summary of Network Rail's regulatory position regarding Project Reach***

Project Reach was initiated to address the need to renew Network Rail's ageing telecoms infrastructure and to provide a new public electronic communications network. Following a procurement process, Network Rail intends to let a long-term concession to a private sector partner - while this is a single concession, Neos Networks Limited will lead on fibre rollout, and Freshwave Facilities Limited will lead on connectivity interventions. The initial term is for 37 years, based on fibre asset life (allowing for a 7-year initial build period), with a possible 30-year extension.

- Neos will provide investment toward upgrading the fibre network in return for being granted rights to the half of the fibre capacity which is not needed for railway purposes for commercial use.

- Freshwave will commit to invest in new equipment to address mobile not-spots (targeting tunnels and cuttings), in exchange for commercialising public connectivity opportunities with Mobile Network Operators (MNOs) in stations at no additional cost to passengers.

We have considered whether the project meets the obligations set out in our Network Licence. In particular, we have looked at Licence Conditions 16 (Financial ring-fence) and 17 (Land Disposal) and concluded that the project falls within existing regulatory approvals. We have therefore determined that no further approvals are required.

This letter sets out how we have reached this conclusion, as well as touching on other relevant contractual obligations.

### **3. Background**

Today, Network Rail has over 16,000 km of data cables next to the railway, each carrying essential information critical to the safe operation of the railway network. This supports important services such as signalling for trains, trackside sensors which allow us to manage the safe operation of our routes, CCTV for security, and corporate circuits and internet services for depots and offices. Over the next two Control Periods, this ageing fibre network is due for upgrade and replacement. In addition, there are pinch-points across the current network where there is no spare fibre capacity available for easy adoption of new applications.

The existing GSM-R network that supports train communications will be upgraded within the next decade to the Future Rail Mobile Communication System (FRMCS) that is needed to support high data volumes and the next generation of train signalling.<sup>1</sup>

These telecommunications renewals typically cost billions (e.g. GSM-R / FTN upgrade deployed in the early 2000's cost c.£1.9bn) and are funded by the taxpayer as well as access charges to train operators. Project Reach is seeking to enter a long-term partnership with the private sector that will secure third-party funding towards upgrading the fibre network and investing in wireless infrastructure to improve mobile coverage in selected tunnels and deep cuttings. Some of the benefits are explained below:

- The railway is increasingly digitally driven. This will allow Network Rail to transform strategically critical operational services (through schemes including European Train Control System (ETCS) and Future Railway Mobile Communication System (FRMCS)) and deliver substantial additional benefit to passengers, rail staff and beyond (as described further below).
- While the existing telecoms network supports core operational services today, these strategic schemes will make telecoms even more critical to the safe operation of the railway. For example, when ETCS and FRMCS are deployed, trains will come to a

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<sup>1</sup> The Future Rail Mobile Telecommunication System (FRMCS) that will replace the current GSM-R service is in the early planning stage, and any new fibre deployed under Project Reach will be utilised to support this FRMCS upgrade.

controlled stop if telecoms connectivity is lost, whereas currently they can continue at reduced speeds for medium distances. The existing fibre cable network is approaching end-of-life, has limited unallocated capacity and cannot meet the needs of these strategic schemes or the wider planned digital enhancements. The current communications network is also more complex than it needs to be, with multiple lower count fibre cables laid across some sections to address individual project needs, rather than adopting a system wide approach, which increases the risk of failure and disruption.

- Reach will deliver a high capacity, more resilient and efficient fibre network that underpins our move to a digitally driven railway. It will also tackle some of the worst mobile 'not-spots' on track and deliver improved connectivity in stations for passengers and rail staff.
- Additional benefits that Reach will enable and deliver include:
  - i. Solving some of the worst mobile connectivity 'not spots', Reach will establish a platform to help tackle additional areas of poor mobile coverage; tackling some of the worst trackside 'not spots' and delivering improved trackside worker connectivity and contributing to improved safety. Delivering modern 5G coverage in managed stations provides faster, higher capacity connectivity to improve passenger experience and improve connectivity for staff in stations. Solving tunnel connectivity on mainline routes should also help drive the closure of remaining not-spots through incentivising MNOs to improve services to all their customers once the obvious railway connectivity issue is sorted as well as meeting the government objective to close not-spots in rural areas.
  - ii. Reach fibre and connectivity infrastructure will support ETCS, Traffic Management, and FRMCS, thus offsetting cost and de-risking delivery of these strategically critical schemes.
  - iii. Unlocking wider operational and passenger benefits: Reach connectivity will support a broad range of digital enhancements – e.g. remote asset condition monitoring, enhanced CCTV, enhanced passenger information, next generation ticket machines, our future corporate connectivity and much more – collectively driving further operational and passenger satisfaction benefit.
  - iv. Delivering wider national benefit: Reach represents an opportunity to create a new high performing digital connectivity backbone for businesses and bring fibre access closer to hard to reach communities, supporting levelling up economic opportunity across major regions of the country, and stimulating and supporting the digital revolution – for example, through providing connectivity to new data centres (a core driver of the fibre

concessionaire's business plan). This is in line with the objectives set out in the High Level Output Statement.<sup>2</sup>

Control Period 7 plans include [redacted] for expenditure on Project Reach, which reflects Network Rail's share of the project deployment costs, with third party funding covering the rest. Network Rail has identified an efficiency related to the project, that considers the net capex savings that will accrue over the implementation period into CP8.

Network Rail has previously engaged informally with ORR to help identify areas for consideration. We are grateful to ORR for their early engagement which has allowed us to think about and address these areas as part of the project and contracting strategies.

#### 4. Contracting strategy

The key terms of the concession for both fibre and mobile connectivity are summarised below:

- Fibre:
  - The new 432 high-count Fibre will be owned by Network Rail but funded and deployed by the Fibre Partner (Neos Networks Limited), enabling Network Rail to benefit from private sector efficiency and innovation, through a national programme rollout that will minimise disruption and maximise safety.
  - The contract has a minimum fibre commitment of 4,500km, contingent on market demand, with 1,000km guaranteed tranche 1 commitment at contract signature, including specified routes for deployment.
  - Network Rail will [redacted] to support deployment, conditional on fibre deployment. If Reach did not proceed, these funds would be spent on fibre renewals.
  - Targeted additional services, including transfer of existing spend items (e.g. some corporate circuits) which complement the scope of Reach and support its expansion.
  - Growth to, and beyond the minimum commitment incentivised through (i) the staged release of Network Rail's underpin; (ii) grant of additional services as perimeter

Figure 1 - Potential routes for 4500km fibre minimum commitment



<sup>2</sup> The HLOS states – 'Over CP7, the objectives set out in this HLOS are intended to directly and indirectly facilitate and advance the objectives Government has set the railway for the purposes of developing a long-term strategy for rail: contributing to long-term economic growth; levelling up and connectivity; delivering environmental sustainability; meeting customers' needs; and delivering financial sustainability.'

expands; and (iii) reduced ability of the concessionaire to distribute to shareholders until certain perimeter milestones (km's of fibre) are achieved.

- Fibre concessionaire granted exclusive rights to commercialise 50% of the new fibres (216 of the total 432 fibres) on Network Rail's network, subject to delivery of the minimum commitment within specified timeframes.

- Mobile connectivity:
  - Freshwave Facilities Limited will be granted rights to commercialise connectivity in 12 of Network Rail's managed stations in return for a commitment to deliver connectivity in tunnels and cuttings, including signing up the Mobile Network Operators (MNOs).
  - Infrastructure will be funded, deployed and owned by the concessionaire.
  - Initial commitment of 54 tunnel interventions on mainlines and investment to upgrade neutral host mobile coverage at 12 managed stations.
  - Exclusivity granted only where interventions are committed (for both the initial commitment and any additional scope agreed).

Figure 2 -Proposed initial connectivity



The transaction is structured to align Network Rail's interests with those of the concessionaire, with both parties incentivised to maximise deployed infrastructure – to and beyond the commitments summarised above. Critically, in the case of connectivity the partner is not only required to build the neutral host infrastructure but also ensure there is continuing service from the MNOs.

## 5. Safety consideration and impact on operational railway

From a health and safety perspective, this partnership strengthens Network Rail's position when responding to 'Code'<sup>3</sup> operator requests to install equipment on its land. Reach's commercial partners will provide alternative solutions to Code operators, reducing the need for new Code operators to access trackside or other operational areas. This helps minimise safety risks for both the operators and Network Rail.

Ensuring railway safety is central to the design of Project Reach. Like any project involving new infrastructure along the rail corridor, it must address the same risks and challenges. All assets will be installed by approved suppliers and must meet Network Rail standards, in the same way as any other works. Materials, installation, operation, and maintenance will follow established Network Rail protocols, with any deviations requiring formal approval through the standard processes.

The maintenance of the fibre will follow the established model where the preferred 1st line maintainer will be the route comms team with involvement of familiar approved 3rd parties from our supply chain [redacted] for additional resource (cable jointers and testers) should they be required.

<sup>3</sup> <https://www.ofcom.org.uk/phones-and-broadband/telecoms-infrastructure/electronic-comm-code>



The fibre concessionaire will contribute towards the costs to maintain the cable with an option that they manage the 3rd line support.

Connectivity assets will be maintained by external parties (no change to current model). Route or the Interface Management teams will be involved should assets be lineside and require safe system of work established.

All parties will follow safe by design principles and assets that require external maintainers will ideally be located outside the rail boundary or positions of safety.

Given the importance of safety underpinning the design and roll out considerations of this Project we have produced a set of questions and answers which are included in Appendix A. We welcome further engagement on all aspects of safety to ensure that we have captured every foreseeable risk and have appropriate management in place for the areas identified.

## ***6. Competition considerations***

We sought legal advice on competition law and concluded that granting certain exclusivity rights to the partners under this agreement does not pose a significant risk of breaching competition law. Specifically, it is unlikely to result in unlawful refusal of access by Network Rail to other operators wishing to build fibre infrastructure on its estate, or in discriminatory treatment between the Concessionaire and rival operators. Therefore, it is also unlikely that a competition authority or court would consider Network Rail to hold a dominant position in providing access to infrastructure or land for telecoms network development.

## ***7. State subsidy***

While not a formal requirement for signing, Network Rail sought legal advice from Clifford Chance specifically regarding potential subsidy control risks. [redacted].

Accordingly, we have concluded that the risk of a successful challenge based on subsidy control principles is low.

## ***8. Financial risks***

Given the scale and complexity of the project, it was classified by the Government stakeholders as novel, contentious, and repercussive. In accordance with HM Treasury's Green Book guidance, we have ensured rigorous adherence to the prescribed appraisal and assurance process. This has included the submission of an Outline Business Case (December 2020), and providing regular updates on contract negotiations, to the Department for Transport (DfT) as the project has progressed. The Full Business Case was submitted early this year and received formal approval from the Government stakeholder on 29 May 2025.

Network Rail and the two partners have now completed drafting of the long-form contracts. Network Rail's liability will be capped at the amount it would have cost Network Rail to carry out a standard renewal. Appendix B provides a summary of potential liability positions that may arise during the Reach Concession term.

Network Rail is contributing [redacted] towards capital expenditure, with approximately [redacted] expected to fall within CP7 of which [redacted] is payable shortly after contract signing. To safeguard this upfront payment, the contract requires the fibre concessionaire's shareholders to provide a financial instrument, which scales down until 750km of new fibre is delivered.

The contract includes a gain share mechanism to protect Network Rail from the concessionaire extracting super profits (anti-embarrassment); however we do not anticipate the gain share hurdles (for fibre and connectivity) to be triggered until the project is well past the build phase and only if the actual commercialisation has been well in excess of current forecasts.

### **9. Licence Condition 16 considerations**

Project Reach is focused on renewing existing telecoms cables to meet the future telecom needs of the railway network. This initiative involves various transactional activities which will improve the railway telecoms system for both the railway and its passengers as a consequence of this renewal. As such, it falls within the scope of Network Rail's Permitted Business as defined in the Network Licence.

ORR has consented to Network Rail carrying out Property Related Activities concerning the Permitted Business in a [letter dated 29 March 2024](#) – Part 1, paragraph 11. This letter states:

*Network Rail may conduct and carry on the following property-related activities where such activity is intended to facilitate, or is conducive or incidental to, the performance of its Permitted Business subject to condition 17 (Land Disposal) of the Network Licence:*

*...(b) the "letting or otherwise granting rights or interests... in land or property" for the grants of land and property interests;*

*...(h) "providing property and management services" for the potential O&M activities.*

It is noted that this consent is due to expire on 31 March 2029, but Network Rail deems that the existing provisions will have continuing effect for authorisation of the Project Reach.

We are satisfied that the Project Reach activities fall within Network Rail's Permitted Business.

### **10. Licence Condition 17 considerations**

LC17 restricts Network Rail's ability to dispose of land. 'Disposal' incorporates not only selling the freehold of land, but also the granting of property rights (leases, licences etc.). Project Reach will involve the installation of equipment on Network Rail's land, and the granting of

certain property rights. Network Rail can only dispose of land either where it is required under an enactment, or where ORR has consented to the disposal. In October 2019, ORR [published a 'General Consent'](#), allowing Network Rail to dispose of land without prior notice in certain situations. Network Rail has considered whether the activities proposed as part of Project Reach would fall into one of these two categories.

#### *Disposal under an enactment*

LC17.1 states that Network Rail can dispose of land *'where the Disposal is required by or under any enactment'*. Clause 4.8 of ORR's General Consent notes that *'there may also be occasions when Network Rail proceeds with a land disposal that, while not made under an enactment, would have been under an enactment had the acquiring party taken the steps to do so.'* Under [Schedule 3A of the Electronic Communications Act 2003](#) ("the Code"), telecom operators have a number of rights, including the right to install electronic communications apparatus on, under or over land. As the Supplier could, as a telecom operator, have sought compulsory purchase powers to site its masts and other apparatus, there is therefore an argument that the proposed disposal is covered by this exception. However, Network Rail believes that the case for disposal under the General Consent is better supported by precedent.

#### *Disposal under General Consent*

Network Rail has taken each of the assets to be installed and considered whether they fall under one or more of the clauses of the General Consent. The relevant clauses under the General Consent are as follows:

- **2.1(b)(vii)** - *A lease or licence of land in connection with...rail infrastructure activities connected to the network.*
  - Network Rail considers the project to be in connection with rail infrastructure activities, as one of the principal purposes is to replace and upgrade existing telecoms
  - The new masts and buildings are part of this project
  - The output of the project will provide cables for Network Rail's signalling and control systems, and improve mobile phone signal for track workers (e.g. in tunnels)
- **2.1(d)(i)** - *A lease or a licence that contains a materially unfettered right permitting Network Rail to terminate the lease...*
  - The contract includes a termination right, so for contractual purposes, there is a "materially unfettered" right to terminate – the fact that the supplier could use its rights under the Code is irrelevant as the lease would still be terminated.
- **2.1(e)** - *licence that would not have a material adverse effect on the ability of Network Rail, any infrastructure manager, any network operator, any beneficiary or a holder of a licence under the Act or the Railway (Licensing of Railway Undertakings) Regulations*

*2005 to use or develop the land for the purpose of providing services relating to railways.*

Appendix C contains Network Rail's assessment for each asset. As part of this assessment we worked through each asset type. In conclusion, as part of the agreement, the new cables will be transferred into Network Rail's ownership, and therefore no land disposal will be required for these. Each of the other assets which will be owned by the Concessionaire falls under one or more of the General Consent grounds. It is likely that the Concessionaire would gain rights under the Code to access and maintain their equipment once installed, but this would be under an enactment and therefore be permitted under the Network Licence. Otherwise, certain masts and buildings will be owned (leasehold) by the third-party and paragraph 2(d)(i) and paragraph 2(e) of General Consent is engaged.

Based on this assessment, Network Rail is satisfied that any land disposals required under Project Reach fall within our existing regulatory consents and we will follow the appropriate process as and when applicable.

### ***11. Licence Condition 19 considerations***

LC19 prohibits cross-subsidy. There is no intention for a new affiliate or related undertaking of Network Rail to be set up to facilitate Project Reach. As such we do not anticipate any issues with compliance with Condition 19 of our Network Licence.

### ***12. Summary***

Project Reach is designed to harness private sector investment to deliver upgraded rail infrastructure that offers better value for money for the UK taxpayer. By working in partnership, rather than in isolation, Network Rail can unlock greater benefits for passengers and the wider economy than would be possible through traditional public funding alone. At the same time, as outlined in this letter, the project remains fully within the regulatory boundaries set by the government and overseen by the ORR.

### ***13. Next steps***

Final Government approval to proceed with the transaction was received on 29 May 2025. Network Rail approvals have been delegated to a Board sub-committee.

All parties are focused on finalising legal contracts for signature in June 2025, while we continue to mobilise for delivery by supporting both commercial partners with planning and survey workstreams.

We would request that you note our position on the project.

Yours sincerely,

Head of Regulatory Compliance & Reporting

**FOR AND ON BEHALF OF NETWORK RAIL INFRASTRUCTURE LIMITED**

## Appendix A: Safety Q&A

*How will the mast/building design/structure and train strikes/impact risk be managed?*

- This is not a risk that is specific to Project Reach – any Network Rail or 3<sup>rd</sup> party project building infrastructure in the rail corridor faces this risk
- Network Rail has standards and design templates in place for masts and other infrastructure builds, and a rigorous design assurance process that involves key stakeholders (typically the asset managers) reviewing and approving design proposals and detailed designs
- Reach will benefit from (i) scale, and (ii) dedicated resources, meaning blue-printed, standard design templates, and resources will enable efficient and consistent reviews, while the project's profile will ensure a strenuous focus on safety and quality.

*What is the process to ensure any new mast placements do not compromise signal sighting?*

- This is a standard part of the design review and assurance process, and not specific to Project Reach
- Network Rail has specifically raised this point in the design guidance document issued to bidders. This document emphasises the importance of safety and good practice in general and specifically states:

*'The designer and DPE are expected to make informed and practical design decisions that take into account the local conditions and requirements, for example... ... Signal sighting rules, to avoid unintentionally obscuring a driver's view'*

- Network Rail has been clear with the Reach partners' regarding the standards that are most relevant to the Reach design and build, including NR/L2/SIG/10158 – Specification for Signal Sighting Assessment.

*Who will maintain the equipment?*

- Maintenance activities will continue to be controlled by Network Rail. The new fibre asset will be maintained using Network Rail's existing supplier and the fibre partner will be on charged a share of the maintenance cost base on its allocated fibres.

*Have Train Operators been consulted regarding upgrades to on-board equipment?*

- In line with current process, TOCs will be consulted should there be any future upgrades required to onboard equipment.

**Appendix B – Liability Summary**

The table below provides a summary of Network Rail’s potential liability position that may arise during the Reach Concession term.

Concession Partner	Build and Operational Phases	At Termination or Descoping
Neos Networks Ltd	[Redacted]	[Redacted]

Freshwave Facilities Ltd	[Redacted]	[Redacted]
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**Appendix C**

Asset type	Instrument	Ownership	LC17 considerations	Does Code apply?
Main cable	Right to use	NR	N/A – no land disposal	No
Spur cables	Right to use	NR	N/A – no land disposal	No
Telecom equipment affixed to NR masts	Licence	Concessionaire	General consent para 2.1(d)(i) & General consent para 2.1(e)	No
Cabinet associated with concessionaire equipment on mast	Licence	Concessionaire	General consent para 2.1(d)(i) & General consent para 2.1(e)	Yes
DAS equipment located on NR stations and other buildings	Licence	Concessionaire	General consent para 2.1(d)(i) & General consent para 2.1(e)	No *
Telecom equipment in NR buildings –	Licence	Concessionaire	General consent para 2.1(d)(i) & General consent para 2.1(e)	No *

\*provided affixed to NR owned 'Bracket' designed for telecom apparatus

Asset type	Instrument	Ownership	LC17 considerations	Does Code apply?
Shared equipment rooms in building (not sole occupancy)	Licence	Concessionaire	General consent para 2.1(d)(i) & General consent para 2.1(e)	Yes
New telecom masts	Lease	Concessionaire	General consent 2.1(d)(i)	Yes
New building for equipment <b>or</b> sole occupancy equipment room	Lease	Concessionaire	General consent 2.1(d)(i)	Yes

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