



**TRANSPORT
SCOTLAND**
CÒMHDHAIL ALBA

Scottish Ministers' High Level Output Specification (HLOS)

Control Period 7

2024 – 2029

Contents

Part 1 - Legislative Background.....	3
Part 2 - Background on Scotland's - Railways Policy Context and Priorities.....	4
Part 3 - Working Together to Deliver - Learning Lessons	6
Requirements of The Scottish Ministers - Support for Rail Services.....	7
Part 4 - Further Requirements of Scottish Ministers - System Maintenance and Development.....	16
Approach to Asset Management, Knowledge and Assurance	16
Relationship between Operation, Maintenance and Renewals (OMR) and Enhancements.....	16
Signalling Strategy for Scotland.....	17
Infrastructure Gauge Maintenance and Assurance.....	18
Infrastructure Readiness for Rolling Stock.....	19
Part 5 - Disposal of Railway Assets.....	21

Part 2 - Background on Scotland's - Railways Policy Context and Priorities

2.1 The second National Transport Strategy (NTS2)² sets out an ambitious and compelling vision for our transport system for the next 20 years, one that protects the climate and improves lives. It advocates a vision for Scotland's transport system that will help create great places - a sustainable, inclusive, safe and accessible transport system, helping deliver a healthier, fairer and more prosperous Scotland for its communities, businesses and visitors. It sets out a number of priorities to support its vision:

- reduce inequalities;
- take climate action;
- help deliver inclusive economic growth;
- improve our health and wellbeing.

2.2 The following strategic priorities reflect the support that Scotland's railway can provide to the delivery of NTS2 outcomes:

- **Safe, robust and reliable services** capable not just of retaining existing passengers and freight but of attracting new custom, including from other modes of transport, responsive to passenger and commercial demands and providing valuable connections between cities and regions;
- **Optimum use of capacity and capability** through the most effective use of the network and the services available through high levels of performance and modernisation;
- **Meeting the "net cost" challenge for the network and delivering Value for Money** through a transparent approach in determining and managing efficient costs to achieve Value for Money for the taxpayer, fare-payer and the rail freight customer who ultimately provide all of the income or revenue that the railway in Scotland receives;
- **Effective integration** through co-ordination and co-operation between rail operators and rail infrastructure management, and between rail and other transport modes;
- **Inclusive and sustainable economic growth** through targeted investment to help reduce inequality and increase economic growth through the use of local products and labour, more efficient use of low carbon or net zero energy and adherence to circular economy principles;
- **Achieving net zero and climate change adaptation and resilience** by promoting the use of sustainable rail services for more passengers and freight customers and through delivery of adaptations in response to climate change,

² [National Transport Strategy 2 | Transport Scotland](#)

greater resilience and preparedness for severe weather events and responsible environmental stewardship.

Part 3 - Working Together to Deliver - Learning Lessons

3.1 The key to the successful delivery of the requirements in this document is a whole industry approach, aligned with and focussed upon the delivery of the strategic priorities for Scotland's Railway. Significant progress has been made with the Team Scotland approach. Control Period 7 gives us the opportunity not only to consolidate the position but to advance and evolve through greater partnership and collaboration, with a clear focus on achieving the best outcomes for passengers, freight customers, Scotland's economy and communities and a clear understanding of the dynamics of the Scotland Route and Scotland's rail services.

3.2 During Control Period 6, a number of functions have been devolved to Network Rail in Scotland and are now embedded in the capability of Scotland's Railway. This has demonstrably improved the alignment between the Scottish Ministers' priorities and objectives and the outcomes achieved. This should not only continue, but Network Rail must explore further where focussed management and collaboration can enable swift, user focussed decision making within the Scotland Route and, where appropriate, challenge can be brought to the cost and strategic alignment of central Network Rail functions.

3.3 During CP7, Transport Scotland will continue to work with Network Rail at both Scotland and corporate/central level, as it evolves its approach to empowerment of the Scotland Route.

3.4 To demonstrate the good practice and procedures incumbent upon it, the following is required of Network Rail:

- to demonstrate at all levels, but in particular in its leadership, a clear understanding of the priorities of the Scottish Ministers and how this translates into railway outcomes and outputs. This applies not only at Scotland Route level, but also at a central level to Freight and National Passenger Operations and Systems Operator functions;
- to provide information at a sufficient level during CP7 on renewals to demonstrate planned versus actual, including the quantum involved, duration and value. This will include clear specification of the original planned type of work (i.e. full renewal, partial renewal or refurbishment) to track any changes from the original plan versus actual undertaken. Clear explanation on any changes from the original plan and what impact this will have on the rail network, any funding implications within the year, the control period and beyond as well as any potential impact across aligned enhancement projects and wider strategic outputs;
- to establish and operate (with ScotRail Trains Ltd.) a joint Scotland-based timetabling team to deliver all activity on the Scottish network. The team should be operational by the start of CP7 and co-located, with one management structure responsible for the delivery of the timetable product,

with a demonstrable understanding of Scotland's geography, economy and network operating characteristics;

- to continue to participate in and foster an Interchange Programme with opportunities for staff in the constituent parties of Scotland's Railway to broaden knowledge and understanding and stimulate greater operational integration through, eg, staff exchanges, shadowing and secondment opportunities;
- to collaborate with Scottish Rail Holdings and ScotRail Trains Ltd. on taking forward the outputs from the Scottish Government's National Rail Conversation³.
- continue to take full cognisance of its equality duties and obligations when taking forward maintenance and renewal projects to advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it, and where this aim has the meaning of:
 - Removing or minimising disadvantages affecting people due to their protected characteristics;
 - Taking steps to meet the needs of people with certain protected characteristics where these are different from the needs of other people;
 - Encouraging people with certain protected characteristics to participate in public life or in other activities where their participation is disproportionately low.

Requirements of The Scottish Ministers - Support for Rail Services

3.5 The following requirements will support the efficient and effective delivery of the strategic priorities for rail.

Maintaining Network Capacity and Capability

3.6 The Scottish Ministers require that the capability of the network will be operated and maintained as a minimum throughout CP7 at a level which will satisfy all of the track access rights of all passenger, freight and charter operators in place at the date of the publication of this HLOS and any rights secured, or in the course of being secured, between then and 31 March 2024. In particular, the network must be operated at a level which is fully consistent with the commitments specified in the agreements or franchise contracts between the Scottish Ministers and Scottish Rail Holdings and ScotRail Trains Ltd. and Caledonian Sleeper and the industry "network change" process. This requirement will allow the rail sector to support the target set by Scottish Ministers to reduce car kilometres travelled by 20% by 2030.

Performance

³ [Scottish Government will take over ScotRail services on 1 April 2022 \(transport.gov.scot\)](https://transport.gov.scot)

3.7 Scottish Ministers require that the outputs of the network will be maintained in such a manner as to enable ScotRail Trains Ltd. to meet a Public Performance Measure (PPM) target of 92.5% for every year of CP7. The 92.5% PPM target is considered pragmatic and appropriate.

3.8 However, it is recognised that performance targets can, in some circumstances, create perverse incentives which act against the interest of passengers. Therefore, the Scottish Government considers it appropriate to allow Network Rail and ScotRail Trains Ltd. a specific derogation from the 92.5% target for trains where delays are caused by the need for speed restrictions during periods of severe weather, or trains have been delayed in order to permit connections from other late running trains or ferries.

3.9 The network should also be maintained in such a manner as to enable the operators of the Caledonian Sleeper to meet their Right Time targets and / or any other performance requirements defined for Sleeper services between the publication of this HLOS and the start of CP7.

3.10 Scottish Ministers also require that the outputs of the network will be maintained in such a way as to recognise the performance requirements of other operators on the Scottish network.

3.11 Network Rail is required to provide a consistently high level of performance for the benefit of freight users in CP7, building on what is expected to be achieved by the end of CP6, with Network Rail providing capability to ensure that the Freight Cancellations and Lateness (FCaL) measurement for freight trains on Scotland's railway does not exceed 5.5%.

3.12 Scottish Ministers expect that the management teams in Network Rail will work in partnership with Scottish Rail Holdings, ScotRail Trains Ltd., Caledonian Sleeper and other stakeholders to meet performance requirements throughout the control period, ensuring processes and procedures represent best current practice, are fully aligned across parties and are regularly reviewed and refreshed. Network Rail is required, in particular, to take steps to minimise unnecessary railway closures through overrunning possessions.

3.13 Scottish Ministers would expect that the significant investment, which is taking place during CP6 on projects, e.g. Carstairs⁴ modernisation, the Argyle line improvement works⁵, and electricity feeder stations upgrades⁶ will, among other things, support the delivery of the performance specification. In addition, the Scottish Ministers would expect that Network Rail will maximise the performance benefits of investment through demonstrable best industry practice in the maintenance and renewal of the rail network and operational and engineering management.

3.14 In support of performance, during CP7, Network Rail is required to:

⁴ [Carstairs remodelling: all services will benefit from the project | RailFreight.com](#)

⁵ [Argyle Line Improvement Works \(scotlandsrailway.com\)](#)

⁶ [Transport Minister sees progress on feeder station upgrade programme \(networkrailmediacentre.co.uk\)](#)

- review, monitor and update processes and procedures in line with evolving best practice, with the expectation that instances of disruption will decline during the course of the Control Period;
- ensure train connectivity, during unperturbed periods, between services and other modes, such as bus or tram. Such connectivity must result in timetables demonstrating good connections from one service to another with a focus on the needs of passengers.

Maintaining and Improving Journey Times

3.15 Rail travel, especially on Scotland's increasingly electrified rail network, offers passengers and business a highly attractive mode of transport which is quick and efficient but also has low or net zero emissions. To retain those advantages over other modes (including the growing electric car market), the rail network must continue to modernise and in Scotland will be required to deliver competitive journey times.

3.16 On parts of the Scottish Network, speed limits reflect the historic capability of previous trains rather than the current capability of both trains and infrastructure. It is recognised that this provides opportunities to improve journey times without the need for further enhancement works. As a result, the Scottish Ministers require Network Rail to take full advantage of maintenance and renewal works and timetable development processes to enable ScotRail Trains Ltd. to achieve improved journey times. This should be based on a decrease in the average minutes per mile measured across all ScotRail services in the current timetable (at January 2023). Maintaining safety, Scottish Ministers expect that Network Rail will work with Scottish Rail Holdings and ScotRail Trains Ltd. on a plan to deliver this outcome, to be in place for the start of Control Period 7.

3.17 In addition, during Control Period 7, Network Rail will work with Scottish Rail Holdings and ScotRail Trains Ltd. to develop a plan safely to achieve improved journey times based on a "***mile a minute***" target on ScotRail Trains Ltd. Intercity services by 2030.

Customer Satisfaction

3.18 A high performing, accessible railway with competitive and improving journey times are key elements of the passenger experience.

3.19 The performance of infrastructure, including the management of Major Stations in Scotland contributes to the overall satisfaction of passengers. In order to ensure alignment of objectives between management of operations and infrastructure, the Scottish Ministers require that Network Rail is measured, as appropriate, against the same National Rail Passenger Survey (NRPS) targets as ScotRail Trains Ltd. and the Caledonian Sleeper Guest Satisfaction Survey thus:

- contribute efficiently and effectively to NRPS targets for the whole Scottish rail network, in particular:
 - 'Overall satisfaction'; and
 - 'How well the Train Operating Company dealt with disruption'.

- to work with the wider rail industry to continue to deliver an agreed measurable improvement to the customer experience by the end of CP7 through improved, and more consistent Customer Information Systems (CIS).

Growing Passenger Numbers and Revenue

3.20 Network Rail must take all reasonable steps to work with Scottish Rail Holdings, ScotRail, Caledonian Sleeper and all rail passenger operators in Scotland to secure year on year growth in rail patronage and, through that growth in patronage, year on year growth in real terms revenue from passengers in Control Period 7, in line with requirements within the ScotRail Trains Ltd. policy compendium, other targets set by the Scottish Ministers and initiatives as agreed between the parties.

3.21 Network Rail must take all reasonable steps to contribute to the work to improve service quality and revenue protection across Scotland's Railway, and in particular, at the Major Stations for which Network Rail is directly responsible. It is proposed that Network Rail Major Stations should be added to the Service Quality inspections conducted by Transport Scotland.

3.22 Progress against the above, and Network Rail's contribution to it, should be measured throughout the Control Period against agreed targets using specified and pre-determined indicators to be agreed prior to the commencement of CP7.

Growing Rail Freight to Support our Environment and Economy

3.23 Moving a growing proportion of goods by rail is a key priority for the Scottish Government. Around a quarter of all transport greenhouse gas emissions come from road freight so modal shift is vital in helping to achieve our transport emission reduction targets. In 2021-2022 alone, rail freight saved some 58 million lorry miles in Scotland. Rail freight also supports a sustainable Scottish economy: it can reduce the cost of distribution and improve brand value, thereby helping the competitive position of Scottish businesses.

3.24 It is important, therefore, to ensure that new rail freight flows secure efficient paths on the railway. Network Rail must demonstrate throughout CP7 that it is using all levers at its disposal to make rail freight attractive to business across Scotland, including simplifying its processes to attract third party investment and facilitate easier access to the railway. Network Rail must also safely deliver an increase in the average speed of freight trains through good operational practices, including timetabling exercises and programmes, and through collaboration with passenger and freight operators and customers. Network Rail should continue to deliver the objectives identified in Scotland's Industry Rail Freight Growth Plan⁷ published in March 2019: encouraging customer confidence, developing growth, doing things differently and looking for simpler solutions.

3.25 New market opportunities are developing, such as express logistics, and Network Rail must demonstrate to potential new customers the reliable and sustainable logistics solution that rail can provide.

⁷ [Freight growth - Network Rail](#)

3.26 Scottish Ministers require Network Rail:

- to facilitate net growth in CP7 of 8.7% net tonne kilometres in rail freight on the Scottish network in conjunction with industry stakeholders. This growth is to be achieved on the existing capability of the rail network without further enhancements. Freight variable track access charges are calibrated to fund the total long run avoidable costs of each additional freight train, therefore, this growth target on the existing network should not trigger additional funding requirements from the Scottish Government;
- to develop collaboratively and consult on a longer-term rail freight growth strategy by halfway point of CP7;
- to aim to achieve a higher rail freight growth rate, based on experience of successful collaboration within the freight sector, with an expectation that a higher growth rate, closer to 10% may reasonably be achievable.

Charter Trains and Railway Heritage

3.27 Scotland's railways are internationally famous and play an important role both in supporting Scotland's tourism industry, and as a tourist attraction themselves. Charter train services in Scotland make an important economic contribution, and on some routes in particular strongly support local businesses. Network Rail, working with Scottish Rail Holdings and ScotRail Trains Ltd., is required to produce a strategy by 31 March 2024 to promote and facilitate charter train operations in Scotland. The strategy should lay out the objectives and approach to build the profile of Scotland's railway heritage to deliver social, cultural or economic value and the measures by which that value will be evaluated and publicly reported.

3.28 Network Rail is required to ensure that structure clearance is maintained on routes that Charter and Heritage Operators vehicle types are authorised to run on, removing the need for annual reapplication for authority to run vehicles on routes they were previously authorised to run over.

Cross-Border Routes

3.29 Cross border passenger and freight services provide a sustainable transport option when compared with road and air alternatives, and therefore it is important that this choice should remain available at all times.

3.30 Scottish Ministers require Network Rail to ensure that at least one cross-border route is available for passenger and freight services at all times other than in unforeseen or exceptional circumstances. Where that is not possible, Scottish Ministers should be notified in advance and would expect to be assured that all options had been thoroughly investigated.

Lifeline Services for Rural and Remote Communities

3.31 Network Rail is required to identify and agree with operators and Transport Scotland those rural routes that require lifeline services which require enhanced protection and recovery where reasonably and economically practicable during times of planned and unplanned disruption. Where planned disruption is taking place, Network Rail will engage with other transport mode operators to ensure no concurrent corridor disruption is taking place.

3.32 Network Rail shall confirm proposals with ORR prior to finalising and sharing with all affected parties by 31 March 2024 and review, consult and update, as appropriate, through CP7.

Net Zero, Climate Change, Resilience and Adaptations

3.33 The greatest contribution that Scotland's Railway can make to the transition to net zero is to grow patronage on our passenger services and grow the use of rail freight to move goods. Low carbon emissions from rail, as opposed to less sustainable forms such as the private car, is a vital component in Scotland meeting the legally binding climate change targets set by the Scottish Government – including the interim 2030 target for a reduction in greenhouse gas emissions of 75% for transport against which meaningful progress is measured.

3.34 The key enablers of achieving the shift described above are embedded within this HLOS – a high performing, resilient railway with improving journey times. Network Rail, working with industry, is key to ensuring growth in the use of rail, and therefore should be measured on its contribution to this.

3.35 More frequent and extreme weather conditions caused by climate change will impact Scotland's Railway's ability to run the railway safely and on time. Not only should the railway infrastructure be more robust to the impacts of climate change, Network Rail must also play its role in reducing rail's overall carbon emissions through the outcomes in Scotland's Railway's Sustainability Strategy. The strategy aims to make a positive impact to the lives of passengers and Scotland's economy while minimising any negative impact on the natural environment.

3.36 In order to ensure that reduction in environmental impact is demonstrable and clear, the Scottish Ministers require Network Rail to continue to improve data accuracy on carbon emissions, in particular Scope 3⁸ data, to enable continuous carbon emissions reductions, which is normalised to cover passenger and freight volumes and set against the baseline of 31 March 2019. The metric must be developed with regard to Scottish Government environmental legislation and working in collaboration with Transport Scotland, Scottish Rail Holdings, ScotRail Trains Ltd and other stakeholders and be in place by 31 March 2024.

3.37 During CP7, Scottish Ministers expect Network Rail to:

- continue to deliver a sustainability strategy which makes progress towards net zero including the Scottish Government interim and subsequent climate change targets (2030 and 2045 respectively)
- develop and deliver a metric which must continually deliver energy and carbon reduction activities to reduce Scope 1 and 2 emissions⁹ against the baseline of 31 March 2019

⁸ Scope 3 emissions include all sources not within an organization's scope 1 and 2 boundary. Scope 3 emissions, also referred to as **value chain emissions**, often represent the majority of an organization's total greenhouse gas (GHG) emissions.

⁹ [Greenhouse Gas Protocol | \(ghgprotocol.org\)](https://www.ghgprotocol.org): Scope 1 emissions are greenhouse gases (GHG) released directly from a business. Scope 2 emissions are indirect GHGs released from the energy purchased by an organization.

- continue towards creating a railway for Scotland that maximises the benefit of planned renewals and improves resilience in the face of the risks and impacts associated with climate change, through targeted physical climate change adaptation works on assets, continual improvements to climate risk assessment processes and development of a longer-term adaptation strategy
- work in partnership with Scottish Rail Holdings, ScotRail Trains Ltd. and other external stakeholders to deliver its net zero, climate change adaptation and sustainability objectives while contributing to related Scottish Government objectives included in NTS2
- to deliver its business in a sustainable manner, contributing to financial efficiencies, reducing its impact on the environment, and making environmental improvements where appropriate
- to evolve its Weather Resilience and Climate Change Adaptation (WRCCA) strategy to set out the main threats and proposed mitigations associated with changes in weather patterns
- in conjunction with the Rail Safety and Standards Board, undertake a detailed and systematic risk assessment of the planned mitigating controls, including operational responses, that relate to environmental-related failures of earthworks, drainage or structures and revise these, if required, to address any areas of weakness identified by the risk assessment
- Deliver a sustainability strategy without drawing on resource from our enhancements budget or ScotRail Trains Ltd.

3.38 In developing metrics for the delivery of the sustainability strategy, Scottish Ministers require Network Rail to improve data maturity by increasing the range of carbon emissions data reported to include Scope 3.

3.39 Metrics must be developed aligned to the Scottish Government's environmental legislation and agreed with input from Transport Scotland, Scottish Rail Holdings, ScotRail Trains Ltd. and the ORR. Agreed targets will be set in advance of and measured throughout CP7.

Financial Sustainability - Meeting the Net Cost Challenge of Scotland's Rail Sector

3.40 Details of the funding available to support the delivery of the requirements within this document are contained in the Scottish Ministers' Statement of Funds Available (SoFA).

3.41 In developing its plans for delivery in CP7 Scottish Ministers require that Network Rail take account of the following priorities for investment:

- maintaining safety, including a programme of works to make provision for weather resilience
- maintaining performance at an acceptable level of 92.5% PPM (with allowances for severe weather speed restrictions and maintaining connections between trains) consistent with that specified for ScotRail Trains Ltd.
- delivering efficiency to improve the net cost and thus financial sustainability of the whole Scottish rail system over time, noting this includes the impact of decisions on passenger and freight train revenue and operating costs.

3.42 Where Network Rail plans to make investments which impact on the SoFA but are not directly and explicitly linked to the delivery of the requirements in this document, then Network Rail should seek the approval of the Scottish Ministers.

3.43 In the approach to delivering the requirements in this document, Network Rail must take account of the following principles, stated policies and priorities:

- the deployment of rail investment funds should support inclusive and sustainable economic growth in Scotland, including through the creation of secure rail industry employment within Scotland. The Scottish Government is persuaded that efficient delivery is optimised by steady work-banks, avoiding peaks and troughs in activity. Steady activity allows and requires the allocation and provision of resources based in Scotland;
- deriving maximum utility from the existing network through whole industry measures that can make best use of existing railway assets and protect revenue, fully exploiting timetable/service-based opportunities, and rolling stock options;
- focusing efficient and affordable investment in infrastructure, in the right location and at the right time centred around maximising the efficiency on all works through a whole system approach to limit the impact on passengers and freight customers and drive down costs;
- building on the successful development of team capability in CP6, maintain an expert whole-industry project client and sponsor capability in Scotland to manage effectively and efficiently all stages of investment, development and delivery of activity on the Scottish network, working with Transport Scotland in joint teams to deliver more efficient whole-life costs;
- working together with ScotRail Trains Ltd. (and cross-border passenger and freight operators as appropriate), to develop a whole industry financial view for each route that takes into account, for example, the cost of the operation and maintenance of the network assets and the revenues realised from the operation of services on those assets;
- maintaining and enhancing a contracting strategy that recognises the value of using local products and providers in delivering greater sustainability and seeks to create a cluster of rail capability in Scotland, while noting that Network Rail enjoys a national buying power to effect economies of scale and that certain specialised rail products cannot be sourced in Scotland (or the UK);
- development of working practices which take account of the adoption of improvements in efficiency and safety. Scottish Ministers expect Network Rail to follow the Scottish Government's Fair Work¹⁰ principles of an effective voice, fulfilment, opportunity, respect and security when implementing those changes which impact the conditions of railway staff;
- maximising benefits resulting from on-site activities, such as sharing possessions, access, on-site costs, compounds etc. (e.g. using renewals disruptive access for efficient decarbonisation, gauging works);

¹⁰ [Opportunity - The Fair Work Convention](#)

- improve transparency on the types of work, quantum and costs of renewals work. Network Rail to capture, track and monitor this information on an ongoing basis to support review of planned versus actual and enable the ability for comparison against wider Rail industry benchmarked Unit Costs (UK, Europe etc).

3.44 Scottish Ministers consider a rolling programme of steady work-banks and activity, using and developing resources based in Scotland, is necessary to secure the most efficient means to deliver rail projects.

Facilitating Efficient Electrification

3.45 Electric passenger and freight trains offers zero emission transport which cost less to purchase and operate, are more reliable and faster and attract more passengers than existing diesel or alternative technology trains. This is reflected in the Scottish Ministers' published Rail Decarbonisation Action Plan. Therefore, it is essential that Network Rail builds on the successful progress in CP6 to drive down the cost of railway electrification works in Scotland.

3.46 Network Rail must continue to deliver and further develop the efficient electrification technical specification agreed across Team Scotland during CP7. The specification must:

- fully support the Scotland investment strategy, including the Decarbonisation Action Plan;
- be compliant with UK law and make appropriate use of (including sensible value for money derogations from) current rail National Technical Specification Notices (NTSNs) for interoperability;
- be updated and amended as appropriate throughout CP7.

3.47 Network Rail working with other stakeholders such as the Rail Safety and Standards Board and Transport Scotland must facilitate alternative, lower net system cost, innovative, technical solutions and, as appropriate, improvements to or deviations and/or derogations from standards to ensure an increasing number of financially viable choices is available (i.e. to the funder).

Part 4 - Further Requirements of Scottish Ministers - System Maintenance and Development

Approach to Asset Management, Knowledge and Assurance

4.1 In its approach to Asset management, the Scottish Ministers require Network Rail to adopt a strategy in Control Period 7, including policies as well as operational practice, which is focussed on safety, reliability, resilience, sustainability, and value for money. The asset management strategy should also clearly reflect the specific needs of the network in Scotland and its users and should be fully aligned to the Scottish Ministers' priorities.

4.2 Since the devolution of rail powers in 2005, the Scottish Government has fully funded Network Rail to establish and maintain an accurate asset database, including gauge data. Experience in previous Control Periods has shown that incomplete or inaccurate asset data has led to risks, delays and costs for the wider industry and funders. Asset management and investment must be underpinned by accurate asset data, including gauge information, which is consistently maintained at an A2 standard as a minimum and appropriate Network Capability statements to allow customers to make informed business decisions.

4.3 In line with the wider objectives of the Scottish Ministers, Network Rail should collaborate with the public sector in Scotland on opportunities, where possible and agreeable with all parties, to facilitate the use of existing railway assets to support our digital connectivity agenda and the enhanced rollout of broadband and mobile telecommunications coverage for the benefit of passengers, communities and businesses.

Relationship between Operation, Maintenance and Renewals (OMR) and Enhancements

4.4 It is imperative that any works proposed on the rail network are considered as a 'Whole System Approach'. Therefore, Scottish Ministers require Network Rail to consider the sequencing of enhancement schemes alongside existing renewal and maintenance programmes to ensure maximum efficiency, whilst minimising disruption to passengers and freight.

4.5 Key areas and how the Scottish Ministers will expect Network Rail Scotland to act are:

- **process** - identifying any/all alignments so as to gain efficiencies, maximise benefits, and maximise value for taxpayer money;
- **management** - scheduling the project timings to meet ministerial / safety/ regulatory requirements;

- **monitoring and reporting** - demonstrating in a transparent manner that plans are delivered and benefits realised.

4.6 Network Rail's asset management, maintenance and renewal plans must improve against CP6 by using smart and new technological monitoring equipment along with revised standards to ensure renewal and maintenance balance is struck making them more affordable. The desired outcome should lead to a critical programme of renewals and better-informed renewal timelines aligned with enhancement works to maximise funding availability.

Signalling Strategy for Scotland

4.7 The Scottish Ministers understand that the rationale for signalling investment is to facilitate the safe and efficient movement of passengers and freight and note that the existing signalling systems in Scotland already deliver this purpose.

4.8 The ORR's Signalling Market Study concluded in 2021 that current signalling unit costs do not reflect the benefit of effective market competition and this suggests that more competition and more viable players for both frameworks and individual tenders could help Network Rail drive better value. The ORR report also stated that "at current unit cost levels, the full replacement of 'conventional' signalling like-for-like is unaffordable".

4.9 The Scottish Ministers have considered carefully the planned approach to signalling investment elsewhere in Great Britain for CP7, but consider that it does not align with Scotland's strategic priorities at this time.

4.10 In particular, the Scottish Ministers consider that no business case exists for the European Train Control System (ETCS) Level 2 in Scotland at this time, as the railway traffic characteristics and capacity issues are not the same as those for which this system is more effective. Further, that the potential benefits of this system may be secured more cost effectively, more quickly and at lower risk by other investments.

4.11 The ORR's Final Determination for Control Period 6 specified that Network Rail should prepare a suitable fully-developed signalling strategy by March 2024 for Scottish Ministers.

4.12 An integrated industry team, working in partnership, with representation from Network Rail, ScotRail Trains Ltd, ORR and Transport Scotland produced the Signalling Scotland's Future document which provides a framework to develop each route's specific signalling, and sets out how to deliver an approach best suited to Scotland's Railway. Network Rail will continue to facilitate, lead and develop the approach. Scottish Ministers require that Signalling Scotland's Future should be used to develop the Scottish signalling strategy by March 2024, which should comprise a programme of signalling plans for each line of route in Scotland, that will maintain safety and operational performance, reduce whole railway system net cost, provide efficiency through integration with enhancement investments, avoid the high

unit cost and premature obsolescence issues of recent approaches and at the same time deliver maximum benefits to passenger and freight customers.

4.13 Until those line of route plans have been produced to the satisfaction of Scottish Ministers, signalling investment should be limited to that necessary to maintain safety and operational performance and to signalling schemes necessary to facilitate enhancement investments, especially decarbonisation through electrification, which will be specified and funded separately.

Infrastructure Gauge Maintenance and Assurance

4.14 Rail vehicles can only operate on routes where clearance to structures is sufficient for that particular vehicle type. The Scottish Ministers' CP6 HLOS included particular requirements for the maintenance, development and assurance of structure gauge, but these were not included fully in the ORR's CP6 Final Determination.

4.15 Therefore it remains the case that Network Rail's current structure gauge processes need to improve, as they can add risk, delay and cost to the introduction and reallocation of rolling stock (including on-track plant); to new routes; the development of new rail freight business and the efficient operation of charter and tourist trains. Passenger, freight train and plant operators should be able to plan the movement of vehicles around the network without the need for expensive and time-consuming bespoke gauging exercises.

4.16 The responsibility for maintaining structure gauge rests with Network Rail, but there is a misalignment of incentives. Operators ought to be able to place reliance on Network Rail maintaining infrastructure and providing accurate gauging data. If Network Rail fails to do so, the cost falls to the operators, customers and funders. The net cost to the railway system, and therefore the Scottish Ministers, remains higher than it should be.

4.17 The Scottish Ministers have fully funded Network Rail to maintain existing asset capability in CP6 and in previous Control Periods. Therefore, Network Rail is required to maintain the Structural Clearance CP6 baseline capability throughout CP7 and to restore any structural clearance which has been allowed to deteriorate.

4.18 Building on collaborative work between Transport Scotland and Network Rail in CP6, a Scottish Passenger Vehicle Gauge requirement and a programme to remove the remaining barriers to deliver this, requires to be defined by the end of CP6, following issue of a Client Remit in May 2022 by the Scottish Ministers. The requirement is that the Vehicles listed in Appendix 1 of that Remit will be able to run over the whole of the Scottish Rail Network, except where agreement has been reached between Network Rail and Transport Scotland to exclude any vehicles/routes that would drive disproportionate cost. This will remove the current barriers to the efficient network-wide operation of available rolling stock and reduce the cross-industry time and cost of vehicle introductions and cascades.

4.19 The Scottish Ministers require Network Rail to ensure structure clearance for the Scottish Passenger Vehicle Gauge requirement is achieved and maintained throughout the Scottish rail network on a timescale consistent with available funding.

4.20 It is known that failure to maintain gauge and assured data about gauge can lead to the imposition of speed restrictions for some types of freight trains. Such speed restrictions can undermine the competitive journey time and resource efficiency of some rail freight flows, leading to the unnecessary loss of rail freight business in Scotland.

4.21 The Scottish Ministers require that freight gauge capability should be maintained to at least the capability in the most recently published issue of the Sectional Appendix¹¹, or the special authorisation issued by Network Rail on a RT3973 form to run a larger vehicle or heavier axle load on a specific Scottish route, whichever is most capable at the time of publication of this HLOS.

4.22 For maximum efficiency, it is necessary that the delivery of a Scottish Passenger Vehicle Gauge proceeds in conjunction with the renewals programme, the Rail Decarbonisation Action Plan, the Industry Growth Plan for Rail Freight and the passenger vehicles procurement and deployment strategies, as described in Network Rail's Integrated Gauging Strategy for Scotland's Railway.

Infrastructure Readiness for Rolling Stock

4.23 It is expected that during CP7 it will be necessary to introduce new fleets of electric and battery-electric trains to replace life-expired diesel trains and the older parts of the existing ScotRail electric fleet.

4.24 Any new trains and new technologies will present opportunities to improve the passenger rail offering, accessibility, system performance, reliability and maintainability and operational costs but will also require adjustments in network facilities and management systems.

4.25 The efficient introduction of new rolling stock will require Network Rail to maintain infrastructure asset capability, and to provide assured data about this capability upon which operators will be able to place reliance when specifying, designing and introducing new rolling stock. Data on capability, infrastructure gauge, electro-magnetic compatibility and vehicle–platform interfaces, should be maintained now for the safe operation of existing rolling stock.

¹¹ <https://www.networkrail.co.uk/industry-and-commercial/information-for-operators/national-electronic-sectional-appendix/> NB: Select 'Scotland' (which is updated annually) from the index.

4.26 In collaboration with Scottish Rail Holdings and ScotRail Trains Ltd., Scottish Ministers require Network Rail to:

- provide assured data that will facilitate the efficient development of the system requirements and business cases for the replacement of diesel and older electric fleets;
- produce and update a coherent plan to facilitate the introduction of new trains procured for Scotland's Railway, to ensure that Scotland's railway infrastructure is ready to operate those trains on arrival;
- work with its suppliers to develop and provide timeous, detailed, route-specific interface specifications with all infrastructure sub-systems, and cooperate to develop cost-effective railway system solutions to any technical incompatibility identified;
- ensure that OMR activities are planned and implemented in a manner that takes advantage of opportunities to reduce the volume and criticality of likely incompatibilities and the workload of train introduction, including for the accessibility of platforms at stations;
- ensure that the time between acquisition of new trains and deployment to available infrastructure is minimised and that delivery and introduction of new trains is seamless;
- cooperate with the specification of infrastructure monitoring equipment to be fitted to the new rolling stock to facilitate the quality, effectiveness and efficiency of infrastructure inspection and maintenance;
- cooperate with the development of a depot and stabling capability plan;
- plan for the introduction of a Connected Driver Advisory Speed System¹² (C-DAS) for the new rolling stock, which takes account of the evolving understanding of the requirements created by different traction technologies. The plan shall address differing power supplies, safety, access, logistics and skills requirements and will be produced in conjunction with industry stakeholders.

¹² A Driver Advisory System (DAS) provides a driver with information to achieve the timetable sustainably, by regulating the speed profile and avoiding unnecessary braking. C-DAS calculates and displays to the driver an energy-efficient speed profile to enable the train to meet the timetable, taking into account timing points, line speeds including speed restrictions, and the train's characteristics and capabilities.

Part 5 - Disposal of Railway Assets

5.1 Network Rail should ensure that assets or material that might be suitable for reuse and which are no longer required by Network Rail are donated to or sold at preferential rates to third sector concerns such as charitable organisations, heritage railways or community rail partnerships. The approach taken should be in line with the relevant section of the Scottish Public Finance Manual.¹³

5.2 Network Rail shall seek the express approval of the Scottish Ministers for the sale or disposal of disused land which will be a matter of interest to Scottish Ministers and which requires a longer term strategic view.

¹³ [Property acquisition, disposal and management - Scottish Public Finance Manual - gov.scot \(www.gov.scot\)](http://www.gov.scot/Property-acquisition,-disposal-and-management-Scottish-Public-Finance-Manual)



**TRANSPORT
SCOTLAND**

CÒMHDHAIL ALBA

© Crown copyright 2023

You may re-use this information (excluding logos and images) free of charge in any format or medium, under the terms of the Open Government Licence. To view this licence, visit <http://www.nationalarchives.gov.uk/doc/open-government-licence> or e-mail: psi@nationalarchives.gsi.gov.uk

Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.

Further copies of this document are available, on request, in audio and visual formats and in community languages. Any enquiries regarding this document / publication should be sent to us at info@transport.gov.scot

This document is also available on the Transport Scotland website: www.transport.gov.scot

Published by Transport Scotland, February 2023

Follow us:



transport.gov.scot