

ORR climate change adaptation report

31 October 2011

1. Introduction

We have produced this Climate Change Adaptation Report in response to the direction to report issued by the Secretary of State. In accordance with that direction we describe how the challenge of adapting to change in climate relates to our statutory functions, and how we will ensure industry identifies and acts to mitigate the risks in planning for the short and long term.

This report focuses on our role as regulator of Network Rail's stewardship of the national mainline rail network. While the industry plans collaboratively, Department for Transport and Transport Scotland are responsible for the funding and specification of train operator franchises.

2. Overview of our role

Our role in ensuring the rail industry responds appropriately to the risk of climate change is to regulate the industry (Network Rail in particular) so that it is planning effectively. Network Rail owns, maintains and operates Britain's fixed rail infrastructure, and submitted its own adaptation report to you in April 2011.

Governments (the Secretary of State for Transport in England and Wales, and Scottish Ministers in Scotland), as major funders, have a particular role in planning the railway for climate change. In the periodic review process government is required to set out the outputs it wishes the railway to deliver (in the form of a high level output specification, or HLOS), and so can decide to fund greater resilience to extreme weather to maintain outputs should climate change result in more frequent extreme weather events. The level of resilience the railways plan for, and the extent to which action is taken to maintain rail performance through climate change, depends heavily on the priorities set by government in this process.

We expect the rail industry (including Network Rail) to identify the current and predicted impacts of climate change, and its recent assessment of those risks and impacts (along with the methodology used to assess them) was included in its own adaptation report to you.

We enable and incentivise industry to adapt to climate change through a combination of short and long-term (sustainability-based) obligations. We consider that planning for adaptation is already embedded in our processes and monitoring as a result of our existing duties, as we explain below.

We impose obligations on Network Rail through its licence to operate the network:

- General obligations, such as its network management licence condition. This condition sets out Network Rail's core obligations to operate, maintain, renew and enhance the network in order to satisfy the needs of operators and funders. This is in respect of the quality and capability of the network and the facilitation of railway service performance, and is not time limited.
- Specific targets set in 'periodic reviews' that determine obligations and funding for a control period (the control period we are in ends in 2014). For example performance targets which measure the percentage of trains arriving on time. We also can and have set requirements in relation to network availability, capacity, safety and asset condition.

In setting the short term specific targets in periodic reviews we ensure the long-term sustainability of the company's plans in a number of ways:

- By requiring plans to be set in a very long term context. Much of Network Rail's infrastructure has a long life-span and so even in the absence of changing climatic conditions it is necessary for it to plan its business for the very long term.
- By requiring whole-life cost justification of investment decisions.
- By reviewing the company's asset management policies to ensure they are sustainable – that is will ensure the infrastructure continues to deliver the same outputs – in the very long term against a background of climate change.

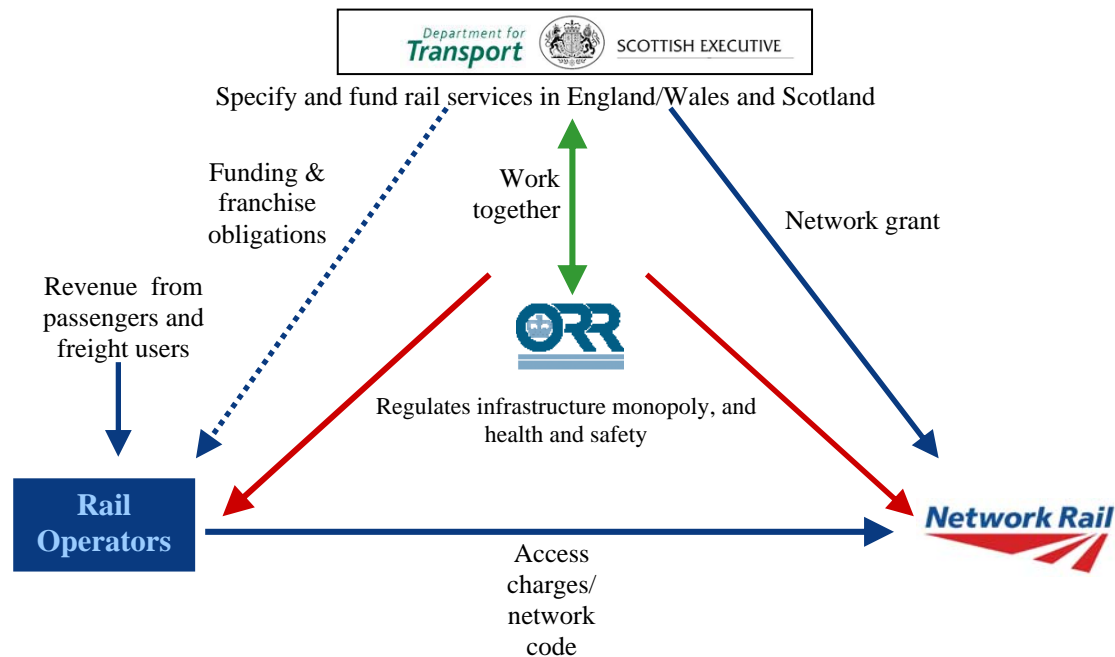
For planning, whole-life cost appraisal to inform decisions, and in asset management we require that the long term context takes account of the risks of and from changing climate.

3. Background: rail industry structure and responsibilities

Industry structure and responsibilities

Operation of train services and of infrastructure are managed by separate companies and this is reflected in a split in regulation of the rail industry between the ORR and government (Department for Transport in England & Wales, and Transport Scotland in Scotland).

Rail services are delivered by rail operators running trains over infrastructure owned and operated by Network Rail. Most passenger train services are delivered by franchises funded by government. Freight train services and some passenger services are run by open access operators on a purely commercial basis. We define the obligations on Network Rail (through its licence to operate the network) and set the level funding it should receive (through charges from operators and a direct network grant from government).



ORR duties & functions

Our duties require us to make sure that the needs of rail's end users – passengers and freight customers are met in as efficient and sustainable way possible. We do this through the exercise of our economic functions, which in short are:

- to regulate Network Rail's stewardship of the national rail network – we define the company's obligations, revenue requirement and monitor delivery
- licence operators of railway assets – operators are subject to a range of regulatory requirements designed to safeguard the public interest.
- approve track, station, light maintenance depot access – to ensure fair access to the network for operators.

Our safety functions are found in the Railways Act 2005, the amendments made by that Act to the Railways Act 1993 and in the Health and Safety at Work etc Act 1974.

In summary, we are the enforcing authority for the HSWA 1974, for the Railways and Other Guided Transport System Regulations 2006 and for various other pieces of railway specific legislation.

In terms of climate change adaptation, while we require industry to plan together, enforcement of obligations is split between ORR (we regulate Network Rail through its licence) and Department for Transport and Transport Scotland (who have franchise agreements with franchised passenger operators). This report concentrates on our regulation of Network Rail.

More formally, we have a number of statutory duties under a range of legislation, including the Railways Act 1993. We need to balance all our duties in deciding how to act, but the duties that particularly affect how we plan for adaptation are:

- To promote improvements in railway service performance;
- Otherwise to protect the interests of users of railway services;
- To promote the use of the railway network in Great Britain for the carriage of passengers and goods, and the development of that railway network, to the greatest extent which it considers economically practicable;
- To contribute to the achievement of sustainable development;
- To promote efficiency and economy on the part of persons providing railway services;
- To enable persons providing railway services to plan the future of their businesses with a reasonable degree of assurance;
- To take into account the need to protect all persons from dangers arising from the operation of railways;
- To have regard to any notified strategies and policies of the National Assembly of Wales and the ability of the National Assembly of Wales to carry out its functions;
- To have regard to any general guidance given by the Secretary of State, or Scottish Ministers in relation to Scottish railway services, about railway services or other matters relating to railways;
- To have regard to the funds available to the Secretary of State for the purposes of his functions in relation to railways or railways services;
- To have regard to the ability of the Mayor of London and Transport for London to carry out the functions conferred or imposed on them by or under any enactment;
- To have regard to the interests, in securing value for money, of the users or potential users of railway services, of persons providing railway services, of the persons who make available the resources and funds and of the general public.

Defra's direction to us required that this report include a summary of all our duties and statutory functions, and so these are reproduced in Annex A.

4. What are we doing now?

We are in the process of conducting the periodic review which will set Network Rail outputs and obligations from 2014 to 2020 ('PR13', since it will conclude in 2013). We have asked that industry – Network Rail, passenger and freight train operators and the industry supply chain – works closely together in formulating the plans that will inform this review.

PR13 works to this high-level timetable:

- February 2011: We issued guidance to industry on the content of the initial industry plan. This plan is intended to inform funders and

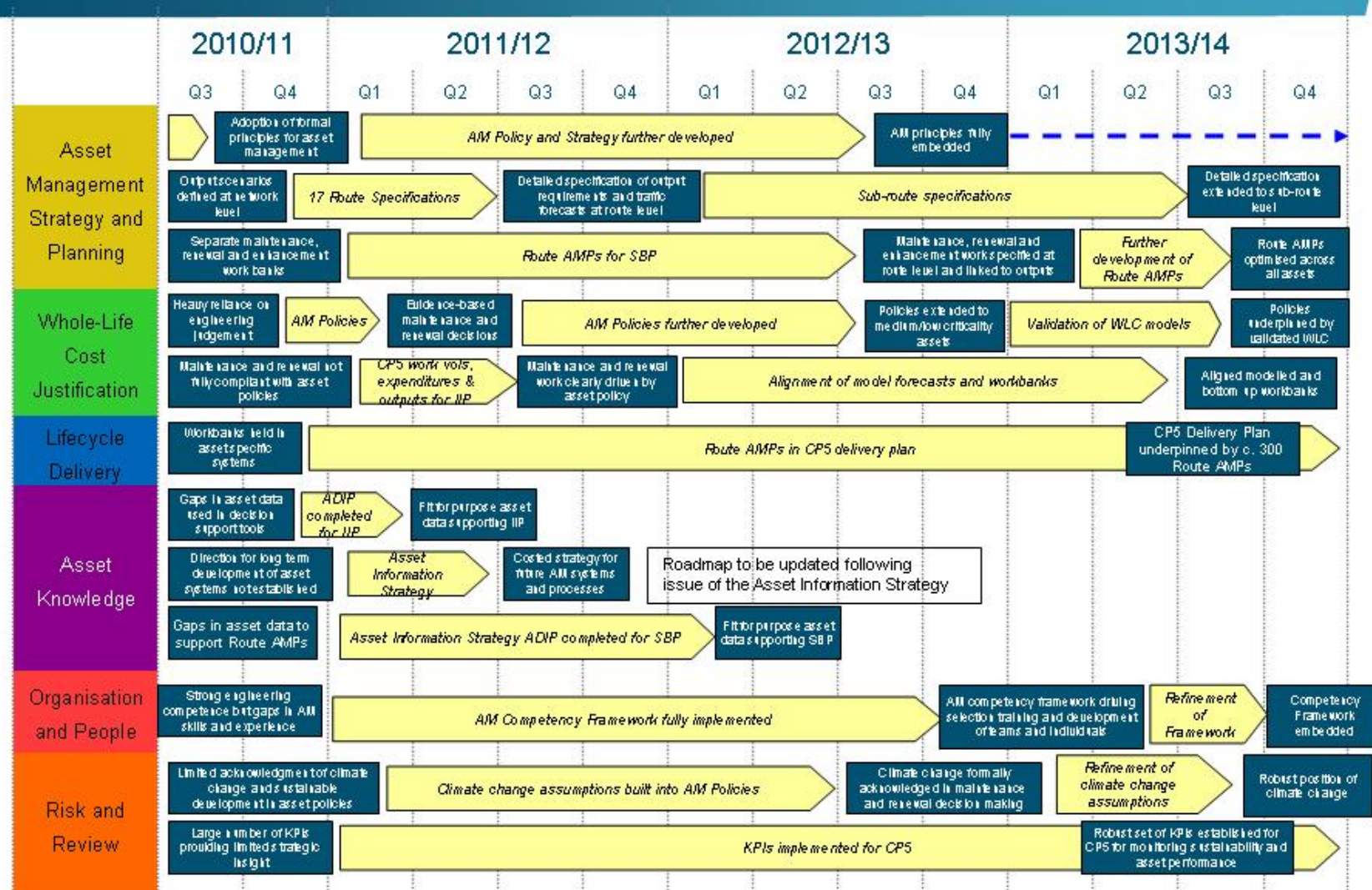
- May 2011: We consulted on the objectives and principles that should underpin the review.
- September 2011: Industry published its initial industry plan setting out its strategy for the next control period and beyond (for the next 30-years).
- February 2012: We advise governments on the content of their specifications of output requirements for the control period, based on our review of the initial industry plan and our consultation on objectives and principles.
- July 2012: The output specifications of the two governments are published.
- January 2013: Network Rail's strategic business plan, developed in consultation with the rest of the industry is published. This plan will set out how Network Rail expects to deliver the governments output specification.
- June, October 2013: We publish our determination of output obligations and income for Network Rail, based on our review of its strategic business plan, first in draft and then in final form.

Our [guidance](#) on the initial industry plan required industry to justify its strategy in whole life costs terms. We also specifically requested the development of a weather resilience plan which would identify where there are opportunities to increase the resilience of the railway (track and trains) to extremes of weather, and the costs and benefits of doing so. As set out in the timetable above, we will be reviewing the plan to inform our February 2012 advice to government on its output specifications.

In parallel with our assessment of the initial industry plan we will be reviewing Network Rail's draft asset management policies, assessing them from the point of view of robustness and sustainability. The company's final asset management submission to the periodic review will be in January 2013.

- In assessing robustness we will consider whether it is reasonable to believe that the proposals can deliver the required CP5 outputs, for England & Wales and for Scotland.
- In assessing sustainability we will consider whether continued application of the policy would deliver the outputs specified for the final year of CP5 indefinitely if demand on the network were to remain steady. We will consider whether NR's plans efficiently manage their network or inefficiently advance or defer essential work.
- We will assess whether policy is based on robust knowledge of the asset base including degradation and the impact of intervention, a robust understanding of unit costs and a robust assessment of whole life asset cost.

Roadmap plan



5. Industry progress and plans

Network Rail listed the various risk assessments it has undertaken in relation to climate change in its own adaptation report. We see two of these as particularly significant in informing its asset policies and periodic review plans.

Tomorrow's railway and climate change adaptation (TRaCCA)

Network Rail has worked together with RSSB on a project to review the key risks to the railway from climate change, and how they might best be mitigated. This work identified the weather events that are likely to pose the greatest threat to the performance and safety of the railway. The risks and their assessed impact, along with proposed mitigation actions, are summarised in Network Rail's adaptation report.

Initial industry plan

The [initial industry plan](#) (IIP) was published on 29 September 2011. It sets out the industry's preferred strategy (separately for England and Wales and for Scotland) for the next control period, including the actions it intends to take to adapt to climate change. The IIP identifies £70 million expenditure (most particularly on bridges and other civil engineering assets) which industry believes is necessary during CP5 in order to adapt to climate change over the longer term.

We will be reviewing the IIP, and the asset policies that underpin it, in order to inform our advice to government in February 2012. As the IIP itself points out, forecasts of climate change are currently changing rapidly as the science advances. It is important that asset policies are kept up to date with the best available forecasts and that the mitigation actions decided upon are robust and adaptable to the uncertainty in the forecasts.

Annex A: ORR's statutory duties

The ORR has a number of statutory duties under certain legislation, including the Railways Act 1993. The duties are set out below. The ORR must balance them when exercising its functions.

- Section 17 of the London Olympic Games and Paralympic Games Act 2006 provides that section 4 of RA93 shall be treated as including the objective of facilitating the provision, management and control of facilities for transport in connection with the London Olympics. It also provides that ORR shall consult the Olympic Delivery Authority about this aspect of the duty;
- Section 21 of the Channel Tunnel Rail Link Act 1996 provides that ORR shall have an overriding duty to exercise its regulatory functions in such a manner as not to impede the performance of any development agreement;
- Section 22 of the Crossrail Act 2008 provides that section 4(1) of RA93 shall be treated as including the objective of facilitating the construction of Crossrail. It also provides that ORR shall consult the Secretary of State about this aspect of the duty;
- To promote improvements in railway service performance;
- Otherwise to protect the interests of users of railway services;
- To promote the use of the railway network in Great Britain for the carriage of passengers and goods, and the development of that railway network, to the greatest extent which it considers economically practicable;
- To contribute to the development of an integrated system of transport of passengers and goods;
- To contribute to the achievement of sustainable development;
- To promote efficiency and economy on the part of persons providing railway services;
- To promote competition in the provision of railway services for the benefit of users of railway services;
- To promote measures designed to facilitate the making by passengers of journeys which involve use of the services of more than one passenger service operator;
- To impose on the operators of railway services the minimum restrictions which are consistent with the performance of ORR's functions under Part 1 RA 1993 and RA 2005;
- To enable persons providing railway services to plan the future of their businesses with a reasonable degree of assurance;
- To take into account the need to protect all persons from dangers arising from the operation of railways;
- To protect the interests of users and potential users of services for the carriage of passengers by railway provided by a private sector operator, otherwise than under a franchise agreement, in respect of the prices charged for travel by means of those services, and the quality of the service provided;

- To have regard to the effect on the environment of activities connected with the provision of railway services;
- To protect the interests of persons providing services for the carriage of passengers or goods by railway in their use of any railway facilities which are for the time being vested in a private sector operator, in respect of the prices charged for such use and the quality of the service provided;
- In the case of functions other than its safety functions as an enforcing authority for the purposes of the HSWA 1974, to have regard to any general guidance given to it by the Secretary of State about railway services or other matters relating to railways;
- To act in a manner which it considers will not render it unduly difficult for persons who are holders of network licences to finance any activities or proposed activities of theirs in relation to which ORR has functions;
- To have regard to any notified strategies and policies of the National Assembly of Wales and the ability of the National Assembly of Wales to carry out its functions;
- To have regard to any general guidance given by the Secretary of State, or Scottish Ministers in relation to Scottish railway services, about railway services or other matters relating to railways;
- To have regard to the funds available to the Secretary of State for the purposes of his functions in relation to railways or railways services;
- To have regard to the ability of the Mayor of London and Transport for London to carry out the functions conferred or imposed on them by or under any enactment;
- To have regard, in particular, to the interests of persons who are disabled in relation to services for the carriage of passengers by railway or to station services; and
- To have regard to the interests, in securing value for money, of the users or potential users of railway services, of persons providing railway services, of the persons who make available the resources and funds and of the general public.

Section 72 of the Regulatory Enforcement and Sanctions Act 2008 requires us to keep our functions under review and secure that in exercising these functions that we do not:

- a) impose burdens which we consider to be unnecessary, or
- b) maintain burdens which we consider to have become unnecessary.

We also have a new equalities duty under Section 149 of the Equalities Act 2010 which requires us to have due regard to the need to:

- a) eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under this Act;
- b) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it (relevant protected characteristics are – age; disability; gender reassignment; pregnancy and maternity; race; religion or belief; sex; sexual orientation);

- c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it.