

Periodic Review 2013: Final determination of Network Rail's outputs and funding for 2014-19

October 2013



considered as a potential licence breach. However, either may indicate trends which raise concern about Network Rail's likely future compliance with an output that we may want to take licence enforcement action to address.

47. Table 1 provides a brief summary of the outputs we have set (a full list of outputs, indicators and enablers is in chapter 3).

Table 1: Summary of regulated outputs for CP5

Area	Outputs
Train service reliability	<ul style="list-style-type: none"> Annual target for the percentage of trains on time (measured by PPM) for England & Wales and Scotland, with 92.5% on time by March 2019. All franchised operators in England & Wales to reach 90% PPM by March 2019, except Virgin Trains which has a combined target of 88% PPM and 2.9% CaSL and East Coast which has a combined target of 88% PPM and 4.2% CaSL. First Great Western will have a minimum of 88% PPM for its long distance services.
	<ul style="list-style-type: none"> Annual target for the percentage of trains cancelled or very late in England & Wales (measured by CaSL), with no more than 2.2% in this category by March 2019.
	<ul style="list-style-type: none"> Annual target of 92.5% of freight trains on time (measured by the Freight Delivery Metric¹⁴).
Enhancements	<ul style="list-style-type: none"> Wide range of improvement projects completed. Delivery milestones will be published in March 2014 delivery plan alongside development milestones for early stage projects. Includes funding for initial ETCS¹⁵ cab fitment.
Safety	<ul style="list-style-type: none"> Network Rail required to deliver a plan to maximise the reduction in risks of accidents at level crossings, using £99m ring-fenced fund¹⁶. This fund combines £67m from the DfT HLOS and £32m of further funding.
Disruption to passengers and freight caused by engineering works	<ul style="list-style-type: none"> Disruption reduced by 8% for passengers and 17% for freight in 2019 compared to 2014, supported by an extension of funding for '7 day railway' projects.
Network capability	<ul style="list-style-type: none"> Track mileage and layout, line speed, gauge, route availability, electrification at least maintained, and improved where there are enhancement works.

¹⁴ Freight Delivery Metric (FDM) measures the percentage of freight trains arriving at their destination within 15 minutes of scheduled time, covering delays for which Network Rail is responsible.

¹⁵ ETCS is the agreed future train control and command system for the European main line network. It forms part of the European Rail Traffic Management System (ERTMS).

¹⁶ Note that safety is not a devolved responsibility. All safety related outputs, indicators and enablers therefore apply to England & Wales and Scotland.

- 8.84 The policy has been developed based on whole life cost modelling to consider the trade-off between different intervention strategies and to identify the most appropriate technology to apply. It proposes a move from conventional re-signalling to a more targeted approach of component renewal to maximise the asset life. This approach has been integrated with programmes of major interventions relating to the European Train Control System (ETCS) and implementation of NOS. The policy proposes to migrate control of signalling to centralised operational control centres at renewal. It proposes that signalling is converted to ETCS operation when renewal is required and there is sufficient rolling stock equipped for ETCS operation.
- 8.85 Signalling maintenance regimes are to be based on the criticality of the asset and tailored to asset type, configuration and location. The policy makes greater use of reliability centred maintenance and remote condition monitoring to achieve this. For high criticality routes the policy involves a move towards more predictive maintenance, informed by remote condition monitoring; for low criticality routes it means a move towards more reactive maintenance. The policy also proposes the use of extended maintenance to manage assets until their renewal through major programmes of intervention such as those driven by ETCS and NOS.
- 8.86 Application of the policy is forecast to result in a peak of signalling renewals expenditure in CP5 and a peak in remaining life in CP7, largely driven by the pattern of ETCS re-signalling.

Level crossing asset policy

- 8.87 Network Rail has produced a level crossing asset policy for the first time. This reflects a need to increase the focus on level crossings as a system rather than as a collection of separate components.
- 8.88 The policy proposes to reduce the safety risk that level crossings contribute to the rail network, to maintain or improve condition and capability, and to move to a targeted renewal of subsystem parts. The policy sets out Network Rail's planned reduction of level crossing safety risk and its plans to facilitate closure, using the funds specified in the HLOSs: £65m for England & Wales and £10m for Scotland (both 2011-12 prices)
- 8.89 Whilst the policy considers renewal and maintenance issues, the focus is on reducing risk. Network Rail has developed a model to assess the risk reduction that can be achieved by a range of potential interventions.
- 8.90 There is a particularly close association between level crossing systems and signalling. The policy recognises the relationship between level crossings and the introduction of ETCS and NOS which are key components of the signalling policy.
- 8.91 A key output of the policy is the assessment of how the level crossing safety fund can be applied to achieve the greatest reduction in risk.

11.44 Abellio in its response supported our approach on the long-term sustainability of the civils structures. They recognised that operational measures to control safety risk had been improved but want to see permanent long-term resilience. No other material consultation responses were received on this issue.

Level crossings

- 11.45 There are around 6,500 level crossings managed by Network Rail and this accounts for 50% of catastrophic train risk. The safe design, management and operation of level crossings can reduce the risks, have a positive effect on user behaviour and so reduce the number of fatal and serious incidents.
- 11.46 Network Rail made a commitment in March 2012, following a number of high profile level crossing accidents to reduce the risk of accidents at level crossings by 50% by the end of CP5 through level crossing closures, renewals and upgrades. It is on target to achieve a risk reduction of 26% by the end of CP4. Risk reduction is measured using Network Rail's Level Crossing Risk Indicator Model; the model generates a risk score that can be used to compare risk between level crossings and to monitor changing levels of risk.
- 11.47 In its SBP, Network Rail proposed to reduce the risk of accidents at level crossings by 8% using the ring-fenced fund made available by the Secretary of State. Projects to achieve the 8% risk reduction included closing 30 high risk level crossings, fitting 200 red light enforcement cameras, and replacing whistle boards with train detection equipment at 300 high risk locations.
- 11.48 In our draft determination we said Network Rail should use the ring-fenced fund to deliver the maximum risk reduction at level crossings irrespective of geographical location (England, Scotland and Wales) and that the fund should be managed centrally and used across the whole level crossing portfolio.
- 11.49 The Scottish Ministers in their HLOS provided a ring-fenced fund to facilitate the closure of level crossings to achieve efficiency benefits, although they recognise that there will also be potential safety benefits.

Response to our draft determination

- 11.50 In its response to the draft determination Network Rail proposed a £120m fund to reduce the risk of accidents at level crossings by 25% in CP5. The £120m²²⁰ is broken down as follows:
- (a) £67m ring fenced fund, already provided in the draft determination. Network Rail's response indicates that this is now expected to achieve a 16% risk reduction. This is significantly different from the 8% risk reduction quoted in the SBP. Network Rail says this is because its most recent plans are primarily for

²²⁰ The amounts in the subparagraphs do not sum exactly to £120m due to rounding.

closing crossings. The best benefit to cost ratio comes from closing high risk passive crossings (crossings with fixed warning signs but with no barriers, warning lights or warning sounds);

- (b) £10m ring fenced fund already provided in the draft determination for level crossing closure in Scotland;
- (c) £32m for level crossings closures (in addition to the £67m in the draft determination); and
- (d) £10m to provide new products for routes including red light enforcement and replacing whistle boards with train detection equipment.

11.51 A number of respondents welcomed the ring-fenced level crossing fund; ASLEF and TSSA thought more funding should be made available for risk reduction at level crossings.

Our response / determination

11.52 We have considered all stakeholder consultation responses and conclude:

- (a) a level crossing ring-fenced fund of £99m (including the £67m ring-fenced fund in the draft determination) is provided to achieve the maximum reduction in risk of accidents at level crossings. The delivery of the planned projects to deliver this is a regulated output;
- (b) arrangements to maximise the sustainable reduction in risk should be set out in Network Rail's delivery plan. These arrangements should include the process for reporting to ORR each year on projects to achieve the maximum risk reduction and actual risk reduction achieved;
- (c) the fund should be retained and managed centrally and used across the level crossing portfolio in England, Scotland and Wales;
- (d) Network Rail proposes to deliver a 25% reduction in risk at level crossings as soon as possible and in any case by the end of CP5, this follows on from the 25% reduction in risk delivered in CP4. The baseline will be measured using Network Rail's level crossing risk reduction model;
- (e) a £10m ring-fenced fund is provided to facilitate level crossing closure in Scotland. This fund will be managed in the same way as other specific funds provided by the Scottish Government, described in chapter 9; and
- (f) the risk reduction achieved by using the ring-fenced level crossing fund is in addition to reducing risk so far as is reasonably practicable through, for example, routine risk assessment, the renewals and enhancements programmes, or the introduction of red light enforcement cameras, train detectors to remove the need for whistle boards and cameras to gather data about level crossing use.