Bill Emery
chief executive
Telephone 020 7282 2006
Fax 020 7282 2043
Email bill.emery@orr.gsi.gov.uk

OFFICE OF RAIL REGULATION

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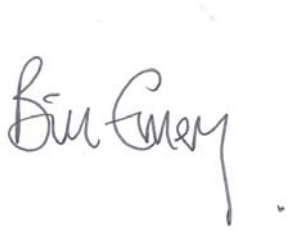
David Higgins
Chief executive
Network Rail Infrastructure Limited
Kings Place
90 York Way
London
N1 9AG

Dear David

Success in control period 4

At our joint Board meeting on 12 January we discussed how we might usefully set out what success for Network Rail would look like over the course of this control period. I am pleased to send you the output of this work, which has been developed jointly by our teams and which we are publishing today. It covers both those areas where we have specified minimum requirements (including for train performance, increasing network capacity and availability), and trajectories for improvements in the critical enablers of longer term success, notably around excellence in health and safety culture and asset management.

Yours sincerely



Bill Emery

Network Rail - success in control period 4

Introduction

1. In October 2008, we set out in our CP4 determination[1] the minimum outputs we required from Network Rail. The output obligations are in two parts: top-level regulated outputs set by ORR, and disaggregated outputs defined in Network Rail's CP4 delivery plan.

2. Network Rail sets out its commitments on disaggregated outputs for its train operator customers[2] in the appendices to its CP4 delivery plan.

3. We will assess Network Rail's achievement of those outputs, expecting commitments to be delivered on time, year-by-year, whilst complying with its licences and access contracts as well as its statutory and contractual obligations. We have also specified efficiency gains to be delivered by the end of CP4.

4. We see these as the minimum requirements and believe there is scope for outperformance.

5. However, although success in the control period can be judged partly against these defined obligations there are other important factors. Keeping customers happy is a good indicator of success and we wish to see improvements in train operator and passenger satisfaction. Looking to the longer term we also expect Network Rail to make real progress with its key enablers - excellence in health & safety risk control, and in asset management - for an ever more successful railway.

6. This note draws on all these to set out in summary terms trajectories of improvement in Network Rail's performance the achievement of which, year-by-year, would satisfy us that the company was on track.

Required minimum outputs

Safety

7. The Government's high level output specification (HLOS) included a 3% reduction in the risk of death or injury from accidents on the railway for passengers and rail workers for the whole of the British mainline network over the five years of CP4 (using the industry's RSSB safety risk model).

8. Network Rail has responsibility for delivering its own contribution, but not that of other parties. The company set out in its 2009 delivery plan two trajectories that will contribute to achieving the 3% reduction in safety risk as shown below.

9. Year by year we will also review progress on the infrastructure component of the precursor indicator model, our enforcement activity, progress on corrective action and recommendations, near miss and all injury trends, safety tour feedback and the safe working index.

Safety trajectories		
	Passenger safety index (fatalities & weighted injuries per billion passenger km)	**Employee health and safety index** (fatalities & weighted injuries per million hours worked)
2008-09	0.258	0.137
2009-10	0.248	0.098
2010-11	0.246	0.096
2011-12	0.244	0.094
2012-13	0.242	0.092
2013-14	0.240	0.090

10. These trajectories do not have the status of customer reasonable requirements.

Passenger train service performance

11. The HLOSs specified that Network Rail and its train operator partners are to deliver improvements in the public performance measure (PPM) by sector, by the end of 2013-14. The relevant national PPM trajectories are below, with the HLOS targets in **bold**.

Passenger train punctuality (% PPM)				
	Long distance	London & SE	Regional	Scotland (First ScotRail)
2008-09	87.6	91.2	90.1	90.6
2009-10	88.6	91.5	90.5	90.9
2010-11	89.8	92.0	91.0	91.3
2011-12	90.9	92.4	91.5	91.7
2012-13	91.5	92.7	91.9	91.9
2013-14	**92.0**	**93.0**	**92.0**	**92.0**

12. In England and Wales, the government specified reductions in cancellations and significant lateness by sector. Network Rail included these trajectories in its delivery plan.

Cancellations and significant lateness (% of services affected)				
	Long distance	London & SE	Regional	*Scotland (First ScotRail)*
2009-10	4.9	2.3	2.6	*2.0*
2010-11	4.5	2.2	2.5	*1.9*
2011-12	4.2	2.1	2.4	*1.8*
2012-13	4.0	2.0	2.3	*1.8*
2013-14	3.9	2.0	2.3	*1.7*
Note: Scotland figures are Network Rail's internal targets				

13. We set maximum levels for the passenger and freight train delay minutes for which Network Rail is held responsible.

[1] Periodic review 2008 - determination of Network Rail's outputs and funding for 2009-14 (ORR, October 2008).

[2] See: Moving ahead - Delivering a better railway.

Network Rail delay minutes			
	Passenger train services (delay minutes)		Freight services (delay minutes /100 train km)
	England & Wales	Scotland (First ScotRail)	GB
2008-09	6.50m	455k	3.92
2009-10	6.27m	436k	3.68
2010-11	5.79m	410k	3.41
2011-12	5.43m	391k	3.18
2012-13	5.19m	386k	3.05
2013-14	4.98m	382k	2.94

14. PPM and delay minute trajectories for individual operators were set out in Network Rail's 2009 delivery plan and revised in the 2010 update. These have the status of customer reasonable requirements.

Network capacity

15. The HLOSs specified some enhancement schemes. In England and Wales the HLOS also set out capacity measures for urban areas and London termini (peak three hours, high-peak hours and maximum average load factors) and for the 23 strategic routes (additional passenger km to be accommodated), some of which required network capacity to be increased. We required Network Rail to deliver against these requirements as part of PR08.

16. The requirements of the HLOSs and of PR08 will be achieved through many projects and programmes including Thameslink, platform lengthening, linespeed improvements, the strategic freight network programme, remodelling and/or rebuilding at Reading, Birmingham New Street and Kings Cross and the national stations improvement programme.

17. Crossrail was not funded through PR08 but is a government requirement. Network Rail's obligations are defined in the protocol and key date 1 submission. Works are currently expected to be completed in a number of phases by 2017. Since the HLOS the government has also stated a requirement to electrify parts of the England & Wales network. Work is continuing to define this requirement in detail.

18. In Scotland Network Rail is required to deliver the Paisley corridor improvements, the Airdrie-Bathgate scheme, connection to the new Borders line and the Glasgow-Kilmarnock scheme (delivered in 2009).

19. The Edinburgh to Glasgow improvements project was not funded through the periodic review but is a government requirement. Network Rail has published the scope of works in its delivery plan and they have the status of a reasonable requirement.

20. Network Rail's enhancements delivery plan sets out in full the required completion dates and key milestones for these schemes. It is updated quarterly subject to a regulated change control process.

Network capability

21. Apart from these enhancements Network Rail is required to maintain network capability as at 1 April 2009 as described in its sectional appendices, GEOGIS database and national gauging database. Capability is specified in terms of track mileage and layout, line speed, gauge, route availability and electrification type. Changes can be made through the industry network change procedure.

Network availability and the "seven day railway"

22. Network Rail is required to deliver a progressive reduction in the disruption to passengers caused by its planned engineering activities such that by 2013-14 there is 37% less than in the base year (2007-08). For freight services there is to be no increase. The required trajectories in the two possession disruption indices[3] are set out below.

Network availability		
	Passenger possession disruption index (PDI-P)	Freight possession disruption index (PDI-F)
2007-08	1.00	1.00
2009-10	1.02	1.00
2010-11	0.91	1.00
2011-12	0.83	1.00
2012-13	0.68	1.00
2013-14	0.63	1.00

Stations

23. Network Rail is required as a minimum to maintain average condition scores within each station category A to F across the network, and to maintain average station condition (across all categories) in Scotland. The baseline (minimum) levels of average condition below are based on Network Rail's survey data.

24. This obligation applies before taking into account improvements funded under the England & Wales national stations improvement programme.

Station stewardship measure	
All network	Minimum average at 1 April 2014
A	2.48
B	2.60
C	2.65
D	2.69
E	2.74
F	2.71
Scotland (all stations)	2.39

[3] Passenger index (PDI-P) measures the impact of engineering possessions in terms of the economic value of the excess journey time passengers experience, normalised by total train-km. The freight index (PDI-F) measures the 'unavailability' of track for freight use, weighted by the level of freight traffic operated over each section of track.

Depots

25. There is no formal regulated output for the condition of light maintenance depots owned by Network Rail although it must show in its delivery plan whether or how average depot condition will change over CP4. Network Rail committed in its 2009 delivery plan to maintain these depots as set out below. This has the status of a customer reasonable requirement.

Light maintenance depot stewardship measure	
All network	**Minimum average at 1 April 2014**
England & Wales	2.52
Scotland	2.56
All LMDs	2.52

Asset serviceability and sustainability

26. We did not set a formal regulated output requirement for Network Rail's asset serviceability and sustainability (except for station condition) in our determination. Network Rail's compliance with its licence requirements is therefore tested against an extensive dashboard of indicators, including both condition forecasts and activity plans set out in its CP4 delivery plan. The March 2010 delivery plan update gave the key component measures of this dashboard. These are set out below.

Indicative asset condition measures (total network)					
	2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Good track geometry	137.3%	137.3%	137.4%	137.5%	137.6%
Poor track geometry	2.40%	2.40%	2.38%	2.36%	2.34%
Intervention/immediate action geometry faults /100km	40.0	39.0	38.0	37.0	35.9
Rail breaks and immediate action defects /100km	6.0	5.9	5.8	5.7	5.6
Civils assets subject to additional inspections	850	840	840	820	809
Signalling condition	2.39	2.39	2.39	2.39	2.39
AC traction feeder station track sectioning point condition	2.78	2.78	2.78	2.78	2.78
DC traction substation condition	2.53	2.53	2.53	2.53	2.53
AC traction contact system condition	1.6	1.6	1.6	1.6	1.6
DC traction contact system condition	1.9	1.9	1.9	1.9	1.9
Telecoms condition	0.89	0.89	0.89	0.89	0.89
Signalling failures (>10 min delay)	18,440	17,058	16,168	14,608	13,614
Points failures	7,691	5,570	4,420	3,388	2,871
Track circuit failures	6,291	5,570	4,973	4,180	3,857
Track failures	6,798	6,656	6,504	6,353	6,238
Power incidents (>300 min delay)	79	87	87	78	77
Telecom failures (>10 min delay)	774	742	721	656	644

27. Compliance with Network Rail's licence obligations will also be tested against the progress Network Rail makes in delivering its proposed renewal volumes as this provides an important leading indicator of future network serviceability and sustainability.

Environmental sustainability

28. There is no formal regulated output requirement for Network Rail's environmental sustainability initiatives in CP4. However, Network Rail included in its 2009 delivery plan a series of commitments that now form part of the package of outputs it is expected to deliver over the control period. These are set out below.

Environmental sustainability outputs					
	2009-10	2010-11	2011-12	2012-13	2013-14
Operational recycling - *stations, office & depot waste mass recycled or re-used*	30%	40%	50%	55%	60%
Network Rail CO_2 emissions - *managed stations, offices & depots*	-5%	-10%	-15%	-17%	-20%
Infrastructure recycling - *renewals & enhancements waste mass recycled or reused*	95%	95%	95%	95%	97%
Environmental incidents - *leading to serious damage*	6	6	6	6	6
Network Rail owned SSSIs rated favourable or recovering status - *for 21 priority sites*	75%	95%	95%	95%	95%
Water recovery - *volume of ground / spring water recovered etc as % of total removed from tunnels*	14%	14%	14%	14%	85%
Environmental sustainability index	6	7	8	9	9

29. The trajectories were revised in the 2010 delivery plan update. They do not have the status of customer reasonable requirements but we will continue to monitor progress.

The critical enablers

Excellence in health and safety culture and risk control

30. We consider that achieving excellence in culture and risk control would be the best enabler to sustain and improve on current performance. ORR and Network Rail have agreed that the goal and trajectory on the key health and safety enablers will be based on the ORR rail management maturity model.

31. The model has five defined and calibrated core elements (with 26 sub-elements). For each of these sub-elements assessments are made on a five level maturity scale: initial/ad-hoc (1); managed (2); standardised (3); predictable (4); and excellent (5). Network Rail has identified nine priority areas for improvement. The trajectories for improvement in these priority areas are set out below.

Rail management maturity model improvement trajectory					
	2009-10	2010-11	2011-12	2012-13	2013-14
Leadership	3	3	3.5	3.5	4
Frontline management and supervision	2	2	2.5	3	4
Data analysis and learning	2	2	2.5	3	4
Competence	3	3	3	3.5	4
Internal communications	3	3.5	4	4	4.5
Risk management	2	2	2.5	3	3.5
Workforce involvement	2	2	2.5	3	4
Designing safety into the asset	2	2.5	3	3.5	3.5
Control of contractors	2	2.5	3	3.5	3.5

Excellence in asset management

32. The quality of Network Rail's asset management is a key determinant of its performance and efficiency both during the balance of this control period and in the long term. Achieving excellence in asset management is therefore a critical enabler. The independent reporter AMCL assesses Network Rail's asset management maturity against its cross industry / international excellence model.

33. This model currently has 23 activities/enablers that are split into six core groups. Each activity/enabler is assessed on a hundred point maturity scale (banded into six maturity states: innocent (<5), aware (5-15), developing (15-30), competent (30-45), effective (45-70) and excellent (70-100)). The reporter completed assessments against its model in 2006 and again in 2009.

34. The reporter, Network Rail and ORR have developed an agreed trajectory for Network Rail to reach best practice in asset management during CP4, recognising key milestones for the critical control period 5 submissions to ORR.

Asset management excellence model				
Core groups	2009	IIP 09/11	SBP 01/13	CP5 04/14
Asset management strategy & planning	56	62	65	67
Whole-life cost justification	47	56	60	64
Lifecycle delivery	65	67	70	72
Asset knowledge	52	59	63	67
Organisation & people	63	67	71	74
Risks & review	50	53	58	61
Overall	**56**	**61**	**65**	**68**

Other related issues

Addressing the efficiency gap

35. ORR's judgements on the minimum level of efficiency improvement in controllable operating, maintenance and renewals expenditure by the end of CP4 are set out below. (Note – individual programme specific efficiency improvement assumptions were used for enhancement expenditure.)

Assumed improvements in Network Rail efficiency by the end of CP4			
Controllable operating expenditure	**Maintenance expenditure**	**Renewals expenditure**	**Total**
16.4%	**18.0%**	**23.8%**	**21.0%**

36. We have agreed with Network Rail that we will use a new approach to measuring year-on-year 'real economic efficiency' improvement during CP4 compared to an agreed baseline. Comparison to our determination assumptions does not necessarily reflect real year-on-year performance as it compares to the assumed financial position at the start of CP4 that was not achieved by Network Rail.

37. Whilst ORR will continue to compare Network Rail's efficiency with the judgements it made in its CP4 determination, the principal basis for monitoring improvement will be against the new real economic efficiency measure, for which the baseline is agreed and the CP4 trajectory is set out below. ORR will assess Network Rail against this trajectory each year, taking into account any agreed adjustments to the baseline (e.g. to reflect change in traffic levels).

Trajectory for cumulative improvement in real economic efficiency				
	Controllable opex	**Maintenance**	**Renewals expenditure**	**Total**
2009-10	-4.4%	2.8%	7.1%	3.6%
2010-11	2.2%	12.6%	16.6%	12.8%
2011-12	4.0%	18.9%	18.7%	16.1%
2012-13	7.7%	21.5%	20.8%	18.6%
2013-14	15.3%	25.5%	25.2%	23.5%

38. The trajectory shows a higher outturn (23.5% overall) because of Network Rail's worse exit position from CP3. Network Rail plans to recover the gap to the expected CP4 start position.

39. If Network Rail achieves its trajectory it will deliver our CP4 efficiency improvement.

Customer and passenger satisfaction

40. Keeping its customers and rail users satisfied is as important to Network Rail's long term success as delivering 'hard' regulated outputs. The satisfaction of passengers and freight users is influenced by many factors which are difficult for Network Rail to influence directly, but the reliability and frequency of services, the provision of information especially during disruption, journey times and interchanges with other modes are areas where Network Rail has an important impact.

41. Network Rail places considerable importance on how it is regarded by passenger and freight train operators (as measured in an annual customer satisfaction survey). It is also committed to working with train operators to improve passenger satisfaction (measured by the National Passenger survey).

42. Network Rail is exploring with ORR and with its customers how best it can measure its progress in addressing issues which impact directly or indirectly on customer and user satisfaction. We expect this work to be completed by the end of 2011.