

INFORMED SOURCES e-Preview September 2017

I was expecting some heavy analysis this month following publication of the England & Wales and Scotland HLOSs and SoFAs. However, as you will see, there was zero financial detail, although the Office of Rail & Road's latest Network Rail Monitor provided some useful, if depressing, background. Even more depressing was the Government's decision to cancel current electrification schemes.

DfT ducks the HLOS challenge
Scots HLOS focuses on the essentials
Electrification - extensions cancelled, future uncertain

We had been warned that the Department for Transport's High Level Output Specification (HLOS) for Control Period 6 (2019-2024) would be restricted to Operations Maintenance & Renewals (OMR). Any enhancements will be announced as and when they have a business case, become affordable and the Treasury has some spare borrowing.

But even this softening-up had not prepared me for the skimpy document published by DfT on 20 July. When you got rid of the covers, title pages and so on, everything DfT had to say about the railway in CP6 was contained in just six pages. And half of those were an Annex which looked like some hastily assembled padding on future demand.

What little content there is, focuses on 'the changes achievable through the operations, maintenance and renewal of the existing railway' over the five years of CP6. However, DfT's real concern is whether the initial cost estimates for renewals are affordable. These were provided by ORR in its Advice to Ministers letters in February this year and DfT is rightfully concerned that they 'do not contain an allowance for efficiency'.

'Efficiency' is ORR-speak for 'unit cost reductions'. Thus, for the first two years of the current CP5 (2014-19), ORR's Final Determination assumed 11.6% efficiency improvements. But out on the real railway renewals efficiency fell by a staggering 23.4%. To put that 23.4% in monetary terms, the work actually delivered by Network Rail cost £800m more than forecast, and that's over the first two years.

So we can't blame DfT and the Treasury for wanting some efficiency commitments for CP6 before issuing the Statement of Funds Available (SoFA). This is now due in October.

However, in its Advice to Ministers ORR had argued that while it would expect an improvement over current unit rates, it was too early to set a CP6 efficiency assumption for the purpose of the SoFA. ORR's further claim that even the likely efficiency improvements over the remainder of CP5 were uncertain cannot have inspired confidence within DfT and the Treasury.

Even worse, ORR recommended that DfT based the SoFA on current efficiency levels, arguing that the funds provided in the SoFA should be 'an envelope not the determination of planned spend'. Any efficiency savings beyond ORR's forecasts could be returned to taxpayers.

Not surprisingly, this 'I'm a Regulator, trust me' approach has not gone down well. DfT has initiated its own studies to provide further assurance that the volumes and costs of operations and maintenance activity are 'reasonable and affordable'. The Department also expects a parallel 'strong and robust challenge' from ORR on cost and delivery efficiencies.

Yet more studies are underway aimed at providing greater assurance that Network Rail's final plans will contain 'robust efficiency proposals across all areas of expenditure'. I suspect DfT has heard that one before.

All of which highlights the inexplicable morass of ignorance surrounding Network Rail's costs and efficiencies. Why inexplicable? Because after regulating and monitoring, first Railtrack and now Network Rail, for 23 years, ORR still needs to consult on why renewals costs are increasing and efficiency falling instead of improving.

On maintenance expenditure, Network Rail's core plans propose an increase from £5.1bn in CP5 to £6.1bn in CP6. In addition to the impact (literally) of traffic growth, electrification means that there will be more infrastructure to be maintained. ORR has yet to analyse these core plans in detail, but its initial view is that they include more reactive maintenance, reflecting the constrained renewals spend over the same period. In other words, if you don't renew ageing equipment, it needs more attention.

Transport Scotland gets a grip
Where DfT provided six pages of waffle and fudge, in its 12 pages Transport Scotland provided a genuine high level specification. For example, the opening statement emphasises that the HLOS is based on the assumption that Network Rail will deliver the majority of outputs specified in ORR's Final Determination for Control Period 5. Those 'residual' elements of the CP5 enhancements portfolio which have been deferred are expected to be delivered 'as a priority' in CP6. I think the 'or else' must have been redacted.

Nor is Transport Scotland afraid to stand up to Whitehall. It points out that while the UK government had warned that it intended to change the basis of funding for Network Rail in CP6, the first formal proposals of how these new funding arrangements will work in Scotland were not received 'until the evening before the HLOS publication deadline'. 'This has not left time for prudent consideration and the necessary negotiations to confirm satisfactory arrangements' notes the HLOS. Which is why it has not been possible for Transport Scotland to provide a SoFA. I think the rest of us ought to know about these 'new arrangements' too.

Throughout the HLOS it is made clear that Network Rail's Scotland route is responsible to the Scottish Government. With the management, operation and governance of all railway activities in Scotland funded by the Scottish Government, the Ministers warn that as rail governance arrangements evolve elsewhere in Great Britain, 'they must not be allowed to compromise or confuse these clear strategic priorities in Scotland'.

The costs and delivery timescales of major rail projects in CP5 having experienced 'significant challenges', the approach to project specification in CP6 will reflect lessons learnt. A Major Rail Projects Portfolio Board, already in place, will provide additional assurance to the Scottish Ministers on 'the progress, management and robust and consistent governance across the entirety of major rail projects in Scotland in the remainder of CP5'. Network Rail will now work with Transport Scotland to improve the governance processes for programme development and delivery 'in order to secure improved outcomes for CP6 and beyond'.

There will also be a new approach to specifying capital rail investment and the release of the necessary funds through a Rail Enhancements

& Capital Investment Strategy. This will also cover major renewal projects generating wider network benefits, such as signalling renewals, or which require significant additional investment in order to maximise an opportunity to improve rail services.

Enhancement and major renewal projects in CP6 will be drawn from a pipeline of potential schemes meeting Transport Scotland's investment criteria. These schemes must be backed by 'credible and efficient' technical proposals which can be delivered efficiently. This pipeline, expected later this year, will include the current rolling programme of electrification and its supporting rolling stock policy. Projects will be authorised by the Scottish Ministers as business cases are fully developed.

Note the 'rolling programme of electrification'. In CP6 Network Rail will be required to develop an electrification technical specification 'optimised for Scotland' that can deliver an efficient and affordable rolling programme. And this programme will be delivered by plant, staff and resources based in Scotland, maximising the benefits to Scotland, including the local supply chain.

Gauging data, or the lack of, provides another example of Transport Scotland's tightening grip. Network Rail will be required to ensure that by the end of CP6, all Scottish routes are maintained to accommodate the gauge of 'all locomotives and passenger rolling stock, including cross-border services and charter operators' vehicles, which have run in Scotland in CP4 and CP5 or are planned for CP6'. To achieve this, Network Rail must have a strategy in place to implement the 'Scottish Gauge Requirement' by the end of CP5, ready for phased implementation through CP6.

Renewals

Policies for the CP6 renewals programme, including the long-term approach and technical strategy for signalling assets on the network, are being reviewed and will have been approved by the Scottish Ministers before the start of CP6. Any subsequent changes to policies or programmes which result in the deferral or cancellation of major or significant levels of renewal works will require approval by Transport Scotland following consultation.

As with England & Wales, ORR's advice to Scottish Ministers suggested that funding for renewals should be regarded as an 'envelope' from which cost savings could be returned to the taxpayer as efficiencies are achieved. While Network Rail Scotland's efficiency gains in CP5 are falling short of ORR's aspirations, unit costs have been coming down, reflected in the minimal deferrals. From this positive Scottish perspective, the 'envelope' approach has its merits since it offers a ring-fenced pot of money within which to plan.

Compared with CP5, selected renewals volumes will be increased with the aim of achieving sustainable asset condition. These include switches and crossings (+29%), under-bridges (+20%) and earthworks (+12%)

Electrification is off the menu.

In addition to the HLOS and SoFA, July 20 also produced a press release from DfT with the headline 'New improvements for rail passengers in Wales, the Midlands and the North'. The release claimed that the availability of 'new technology' meant that 'disruptive electrification works' between Cardiff and Swansea, Kettering to Nottingham and Sheffield, and between Windermere and Oxenholme, will no longer be needed.

According to Transport Secretary Chris Grayling, 'technology is advancing quickly, and this government is committed to using the best available technologies to improve each part of the network'. In this post-modern railway, 'new bi-mode train technology' offers seamless transfer from diesel power to electric that is undetectable to passengers'. Undetectable unless you happen to be sitting on top of a 1000hp MTU Vee-12, that is.

With the railway industry also developing alternative fuel trains, using battery and hydrogen power, 'we no longer need to electrify every line to achieve the same significant improvements to journeys, and we will only electrify lines where it delivers a genuine benefit to passengers'.

So we are back to the anti-electrification tone of DfT's 2007 White Paper 'Delivering a sustainable railway'. And the wonderful 'new technology' is, in fact, bi-mode trains which are either very expensive overweight EMUs or very expensive underpowered DMUs, all with added emissions. And, sorry to be picky, even DfT has conceded that under diesel a bi-mode can't offer electric journey times.

MML

On the Midland Main Line, electrification to Kettering and Corby is still going ahead, but the remainder of the scheme is cancelled. As a result, the next East Midlands franchise, just put back to August 2019, will be required to procure a fleet of bi-modes for service from 2022. According to DfT this new fleet will improve journeys sooner, 'without the need for wires and masts on the whole route'.

DfT is forecasting journey time reductions between London and Nottingham and Sheffield 'by up to 20 minutes in the peak'. Since even with the Class 800 engines at the full commercial rating it looks as though the bi-mode has to be thrashed to get close to IC125 performance, the bulk of those 20 minutes will come from the existing infrastructure upgrades plus cutting out stops south of Kettering.

Electrification of the 10 mile branch line between Oxenholme and Windermere has also been cancelled. Chris Grayling said in his statement that his 'bi-modes with everything' policy means 'there is no need to construct intrusive wires and masts in this National Park'. My, how my chums in the Goring Gap resistance movement jumped on that admission.

And once again the luddite policy is justified on the grounds that journeys between Windermere and Manchester Airport will be improved sooner 'and with less disruption to services and local communities'. Four direct services a day in each direction between Windermere and Manchester Airport are promised for the May 2018 timetable and from December 2019 the service will be provided by 'brand new' trains. Northern will also explore the possibility of deploying 'alternative-fuel' trains on the route by 2021.

These three dates caused some confusion. As far as I can tell, the four direct services in the May 2018 timetable will be provided by Porterbrook's Class 769, aka the Class 319 Flex bi-mode conversion.

what about the 'brand new trains'? These must be Northern's CAF DMUs running under the wires.

Finally there's the trial of an 'alternative-fuelled' train on the Windermere branch. .

At Railtex Alstom told me that they were not interested in the bi-mode market but were very keen to talk about their iLINT hydrogen fuel-cell powered version of the Coradia diesel multiple unit platform. With the new Wigan plant as a base, it looks to me as if Manchester Airport-Windermere would be the ideal demonstration route for the bionic duckweed revolution.

There was no mention of the 'paused' Trans-Pennine electrification in the 20 July announcement, but speaking to the Financial Times the next day Chris Grayling revealed his cunning plan - discontinuous electrification. Or, as Ian Walmsley prefers, 'disingenuous electrification'. Personally I prefer 'intermittent'.

Mr Grayling told the FT 'We don't need to electrify all of every route. There are places that were built in Victorian times where it is very difficult to put up electric cables. If there are bits of the Trans-Pennine network that are complicated to do and we have a bi-mode train we can say, "Here is a section we can have a diesel". We will be electrifying Trans-Pennine but we can do it in a smarter way'.

Intermittent electrification is, of course, yet another example of infrastructure engineers seeking to cover up their own shortcomings by dumping a bodged solution on the rolling stock engineers. With the pantographs going up and down and the engines starting and stopping during a journey, the scope for failures is transferred from Network Rail to the TOCs, as is the cost of maintenance.

Roger's Blog

As forecast in last month's blog, the HLOSs and SoFAs having been published I was ready for a session with the ORR Chief Executive Joanna Whittington to discuss progress with the Periodic Review for CP6 and what happens next. It provided a very useful insight into the work of ORR at a time of massive change.

ORR was set up to regulate a private sector infrastructure owner - Railtrack - and nearly 23 years later is dealing with an arm of government.

But before that I had become an intermittent commuter between Welwyn Garden City and Hackney Central for a week, thanks to elder grand daughter taking part in the finals of a dance competition at the Hackney Empire. Obviously I couldn't miss this opportunity to observe Great Northern, the Victoria Line and London Overground from the regular user's viewpoint. You can read what happened in this month's Welcome page at the front of the magazine.

In the month ahead I'm hoping to attend the Retired Railway Officers Society September Lunch and there are a number of outstanding invitations to catch-up meetings to arrange now that the holidays are coming to an end.

Meanwhile, there's no shortage of analysis and preparation to get on with for what promises to be a very busy autumn. And having entered that table in the three page appendix to DfT's HLOS I mentioned into a spread-sheet it looks as though there is more to it than I first thought.

So, as they say in all the shops nowadays, 'enjoy the rest of your holidays'. And if you have just returned I hope this month's e-preview has not wiped out the benefits.

Roger