National Audit Office

REPORT BY THE
COMPTROLLER AND
AUDITOR GENERAL

HC 227
SESSION 2013-14

5 JUNE 2013

Department for Transport

Progress in the Thameslink programme

Key facts

£3.55bn	1,140	1.4 to 1
Thameslink programme's budget for infrastructure works, 2006 prices	new carriages expected to be provided to increase passenger capacity	most recent benefit-cost ratio for the programme

£1.6 billion	estimated capital cost of trains and depots funded through PFI
£1.7 billion	cost of the first phase of the infrastructure works, which was £143 million under budget, 2006 prices
£1.8 billion	budget for the second phase of the infrastructure works, 2006 prices
8 years	original duration of the programme from approval in 2007 to completion by 2015
11 years	revised duration of the programme with completion in 2018

Summary

1 The Department for Transport (the Department) is sponsoring a programme to increase passenger capacity on the Thameslink route through central London. It will do this by running higher frequency, longer trains on an expanded network. The Department estimates that the programme will make net present benefits of £2.9 billion through reduced journey times, reduced crowding on trains and quicker interchanges between services.

2 The programme involves the following:

- Improving tracks and stations including extending platforms, reconstructing Blackfriars, Farringdon and London Bridge stations and introducing new signalling technology, expected to cost £3.55 billion (in 2006 prices). Network Rail is doing this work for the Department, funded by the Department's network grant.
- Buying a fleet of new trains and two new maintenance depots, with an estimated capital cost of £1.6 billion, which the Department is financing through a private finance initiative (PFI).
- New franchise arrangements for running the passenger service on the Thameslink route.

3 The programme has a long history with the first proposals to increase capacity made in 1989 and developed by a succession of rail industry sponsors in the 1990s and early 2000s. The Department only became sponsor of the programme in July 2005. The Department has made most progress in implementing the infrastructure project, with the first phase delivered in December 2011 under budget and on time. It has, however, had to revise its plans for delivering the second phase and change the timetable for delivery from 2015 to 2018. The project to buy new trains has taken longer than expected and the award of contract for the new trains has been delayed by more than three years so far. The Department also revised the timetable for the Thameslink franchising project, largely as a result of the pause to the franchising programme after the Department cancelled the InterCity West Coast franchise competition.

Scope of the report

4 This report, our first on the programme, examines the Department's progress to date, focusing on:

- the background for the programme (Part One);
- delivering the infrastructure (Part Two); and
- the impact of the delays to buying the new trains (Part Three).

5 We summarise our audit approach and methods in Appendices One and Two. We will re-examine the buying of new trains once the contract has been awarded. This may be part of other work examining the Department's strategy for securing trains for the network.

Key findings

The case for Thameslink

6 There was and continues to be a robust transport case for the programme. Thameslink services have been consistently among the most crowded London routes in recent years at 2.7 per cent above capacity during afternoon peak times. Passengers travelling on the current Thameslink route are among the least satisfied with space on trains and demand is forecast to increase (paragraph 1.5).

7 There is a clear link between the Department's rationale for the programme and the economic appraisal as reducing overcrowding depends on running more frequent and faster services through central London, which will improve journey times.

- The Department estimates the current benefit-cost ratio at 1.4 to 1, with the main benefits being faster journey times, improved journey ambience and reduced interchanges. The Department has followed best practice in recalculating the benefit-cost ratio at key decision points and has consistently chosen the option with the best ratio out of those which addressed its key strategic objective of reducing overcrowding in the longer term (paragraphs 1.6, 1.10, Figures 2 and 3).
- In our report on High Speed 2 we reported that HS2 Limited found errors in its benefit-cost model, which it subsequently corrected. While we cannot give assurance that the modelling framework underpinning the benefits calculation for the Thameslink programme is error free, no errors have been identified in the modelling of passenger demand which drives much of the programme's benefits. There is also less risk in the Thameslink modelling framework than that for High Speed 2 as it is less complicated and is in a steady state of development. However, the Department has not undertaken its own detailed review of the modelling or its outputs. It has relied on its consultants to do this, which is contrary to best practice (paragraph 1.9).

Delivering the infrastructure project

8 **The Department has kept the infrastructure project within the original budget of £3.55 billion (2006 prices) which it agreed with Network Rail in 2007. Planning was immature when the budget was approved, which meant that significant additional effort was needed to control the project later on.** Additional unexpected costs in phase one and two brought further challenges (paragraphs 2.3 and 2.5):

- Phase one was completed on time and to budget despite cost pressure arising from scope changes to Blackfriars and Farringdon stations and Blackfriars Bridge being in worse condition than expected. The Department allowed Network Rail to use savings it had identified from other parts of this phase to offset the increased infrastructure costs of £217 million, in accordance with the regulatory protocol agreed between the two parties (paragraphs 1.15, 2.6 and 2.7).

- Phase two needed to be re-planned when detailed planning established that the original design would exceed the budget and would be difficult to deliver. The Department responded well to this challenge by reappraising its options for continuing with the programme and improving its scrutiny of Network Rail's costs. The Department worked with the industry to re-scope plans for the second phase so that estimated costs are now within the original budget. It engaged cost consultants to gain assurance over Network Rail's cost estimates. Passenger benefits measured in the business case, such as crowding relief and journey time savings, remain significant following the change in scope. However, forecast commercial income included in the benefit-cost ratio has been reduced by £0.9 billion following changes to the design of London Bridge station (paragraphs 1.11, 2.9, 2.10, 2.12 and 2.13).

The Department deserves credit for keeping the costs within the original budget through a combination of working closely with Network Rail, approving significant changes to individual budgets and strengthening its challenge of costs for the second phase of the programme. It is also encouraging that the Department has learnt from experience and refined its monitoring approach over time (paragraphs 2.3 and 2.16).

9 **The Department was sensible to reset the timetable when it realised the original timetable for the second phase of the infrastructure project was unrealistic.** In 2010, the Department extended the timetable by three years to 2018, based on the revised plans for phase two and a more detailed understanding of what delivering the project involved. Our report on cancelling the InterCity West Coast franchise procurement highlighted that unrealistic timetables can create mistakes (paragraphs 1.10 and 2.12).

10 **The Department has provided good industry leadership and promoted strong working relationships across the rail industry.** This has enabled it to manage a number of specific challenges. These include keeping services running during major infrastructure works and addressing the technological challenges of integrating the systems needed to deliver the new, high-frequency service. Cross-industry collaboration was also important in identifying more deliverable and affordable plans for phase two (paragraphs 2.12, 2.18 and 2.19).

The impact of delays to the train procurement

11 **The award of the contract to buy new trains is currently delayed by more than three years.** The Department decided in March 2008 to let a complex PFI contract to one supplier to design, build, finance and maintain the new trains. We cannot comment in detail on the reasons for the delay to the procurement until the contract is awarded. However, the delays raise questions about whether the Department underestimated the scale of work, time and skills and capacity it required to negotiate a complex PFI deal (paragraph 3.3).

12 **The delays impact significantly on the rest of the programme.** The delay in letting the contract for the new trains:

- Adds logistical complexity to the infrastructure project. In particular, there are risks around accommodating the train design with some elements of the infrastructure project (paragraph 3.7).
- Adds complexity to the process of letting a new franchise. Uncertainty around when the train contract will be let makes it more difficult to determine appropriate terms for the franchise agreement (paragraph 3.12).
- Raises questions about the feasibility of delivering the whole programme by 2018. The Department has not yet fully mapped out the programme's critical path based on a revised timetable for delivering the new trains to determine whether 2018 is still feasible or how much contingency is left in the timetable. The Department has been working with its industry partners to do this but cannot complete this until it has let the contract for the new trains (paragraphs 3.13 and 3.14).

13 **The delays also affect the Department's plans for the electrification of other parts of the rail network.** The delays mean that the Department is currently buying additional trains to meet short-term demand on newly electrified routes elsewhere in the country. The additional procurements raise questions around who bears the risk that the trains will still be needed when the Thameslink procurement is completed, and the Department's role in securing and managing the allocation of trains within the network. We intend to return to this subject in future work, as noted in paragraph 5 of this Summary (paragraphs 3.16, 3.17 and Figure 9).

14 **The Department has not focused enough on managing the effect of the delays on other elements of the programme.** It is addressing this by revising its programme governance and management structures. It is too early to assess how the new arrangements will work but the steps it has taken appear sensible. Given the scale and complexity of the programme and the amount of public money at stake, it is disappointing that the Department did not seek to address these issues earlier (paragraph 3.15).

The Department's capacity to deliver the programme

15 **The Department's team managing the programme is small, which may have impacted on its capacity, for example, to manage the programme as an integrated whole.** External reviews of the programme have repeatedly raised concerns about the size of the team compared to the scale and complexity of the programme. The team became particularly stretched following the 2010 Spending Review, which it sought to address through additional recruitment in 2012. However, the size of the team still appears small compared with teams for other complex government projects (paragraph 1.20).

16 **The programme has benefited from good continuity at the senior responsible owner level since 2008,** which has helped to build strong industry relationships. That post holder has, however, also been stretched at times when he was given responsibility for the £4.5 billion Intercity Express Programme. He will be moving to support delivery of High Speed 2, and a successor has not yet been appointed. While it is understandable that the Department would place its most experienced senior responsible owner on its biggest programme, we are generally worried about the Department's capacity to deliver the number and scale of projects that it is currently involved in (paragraphs 1.18 and 1.19).

Delivering value for money through the franchise

17 **The Department plans to transfer a lower level of risk to the Thameslink franchisee for the next seven years to incentivise the operator to support the programme's delivery.** The Department feels that an arrangement such as a management-style contract, which transfers lower risk to the franchisee, may be appropriate. This is because the new franchisee will have to successfully deliver major changes to its service, caused by the planned infrastructure works and also work closely with the train provider to bring the new trains into service. This will be the first time that the Department has let competitively a management-style contract (paragraphs 3.10, 3.11 and 3.12).

18 **Delivering value for money from the programme depends on the Department letting a longer-term franchise, in around 2021, which incentivises high performance and gives a good return to the taxpayer yet minimises risk.** The long-term impact of the programme on taxpayers will depend on the franchise agreement's terms and profitability. This is sensitive to, among other things, the cost of the new trains and passenger demand for the services (paragraph 1.13).

Conclusion on value for money

19 The Department has a clear case for investment in the programme: to increase capacity on an already overcrowded route, which it expects to deliver net present benefits of £2.9 billion. It is too early for us to conclude on value for money, which cannot be demonstrated until after 2021 when the new Thameslink service is running. The Department has so far done well to contain the infrastructure costs within the original budget. However, the delays in agreeing the contract to buy new trains mean that delivering value for money from the programme as a whole is at greater risk than we would have expected at this stage.

Recommendations

To build on the good progress in delivering the infrastructure part of the programme and to deliver value for money, the Department needs to:

a **Ensure it has the capacity to meet the challenges of the next phase by:**

- appointing a new senior responsible owner for the programme with relevant skills and experience to begin immediately after the current one moves on; and
- developing the critical path planning it is currently undertaking to adopt a more strategic approach. It should identify key points in the future where additional departmental resources may be needed to keep the programme on track and also where it might impact on or be affected by other rail projects managed by the Department.

b **Invest sufficient time and resources in considering carefully the details of the seven-year franchise agreement, as it has not previously competitively let a management-style contract.** Our report on cancelling the InterCity West Coast franchise procurement highlighted the importance of allowing sufficient time to fully understand new approaches to letting franchises. The Department will need to consider:

- how to incentivise the franchisee to maintain performance for passengers, grow revenue and support the delivery of the programme; and
- how to set the level and terms of any management fee.

In delivering future major projects, the Department should:

c **Focus on the practicalities of how the project will be delivered from an early stage in the planning process.** The Department should ensure that its industry partners are incentivised to look beyond the early planning or approvals hurdles to deliver plans that are realistic and achievable.

d **Avoid fixing timetables before it has a good understanding of what the project will involve.** The Department should base its timetables on a clear understanding of what needs to be done, including a realistic contingency allowance. Where it is important to announce a timetable early in project development, the Department should be open about the amount of uncertainty that exists to avoid setting itself up for failure.

e **Identify and plan how it will manage the interdependencies between all the key elements of complex projects as it develops its delivery plans.** For rail projects the Department should identify how it will manage the interfaces between infrastructure work, train and franchise arrangements. The Department should identify potential risks that may arise for the whole programme should smaller projects be affected, and have plans in place to manage these from the project's outset.

f **Have a proper understanding of the models that underpin business cases and reduce its reliance on advisers for assurance.**