Feature **Infrastructure**

Spreading the Gospel

With new DMUs to be ordered, the Gospel Oak-Barking line is unlikely to be electrified anytime soon.

PAUL PRENTICE examines what the future holds for this vital London artery

ondon's Gospel Oak-Barking Line is a peculiar island of intensive suburban diesel operation, in a city otherwise characterised by electric networks.

The line (colloquially known in some quarters as the GOBLIN) has witnessed unprecedented passenger growth in the past five years. Yet arguments remain as to how to resource improvements.

Campaigners from the Barking Gospel Oak Line User Group (BGOLUG) recently expressed their dismay that an electrification

Much of the line runs through densely populated parts of North London. On March 21, London Overground 172008 approaches Leytonstone High Road with the 1517 Barking-Gospel Oak. ANTONY GIPPY

plan was not included in the Government's High Level Output Specification (HLOS, *RAIL* 701)

Without electrification there is little chance of seeing much in the way of capacity expansion on the line. From a train operator's point of view, a smaller (isolated) diesel fleet cannot be as efficient as an all-electric fleet - operationally, financially or environmentally.

The line received substantial investment as recently as 2010, when eight new two-car Class 172 DMUs replaced a similar number of Class 150s. At the same time, a peak 15-minute frequency was introduced, and further boosted by an all-day 15-minute frequency in May 2011.

But despite the frequency enhancements, the '172s' have (somewhat predictably) been



overwhelmed, with Transport for London's own forecasts suggesting that the GOBLIN has the potential for even further explosive growth. As such, it is keen to see more improvements to the line.

BGOLUG Assistant Secretary Glenn Wallis says that before the current concession was let, TfL had envisaged keeping the '150s' and expanding them to three-car units. "That was supposed to be a holding position, pending electrification," he says.

The key issue, as with so much of the UK rail network, is capacity.

"Looking at plans for two-car '172s' at Marylebone with Adrian Shooter [former Chairman of Chiltern Railways - and London Overground Rail Operations Limited], we knew that two-car units were too small," says



Above left: Evidence of TfL investment is at Upper Holloway on July 23, as LO 172001 arrives with the 1532 Barking-Gospel Oak. The refreshed station includes new signage and has been repainted into London Overground's orange colour scheme. ANTONY GUPPY.

Above right: London Overgound '172s' share the line with freight traffic. On March 19, DB Schenker 66078 (in EWS livery) passes LO 172001 in the bay platform at Gospel Oak, the line's western terminus. Electrifying the line would benefit passenger and freight traffic alike. ANTONY GUPPY.

Wallis. He cites the introduction in the past ten years of Oyster cards, and the integration of former Silverlink services as part of the Overground network (branded under the TfL banner).

"By putting the line on the Tube map, we knew patronage would rocket," he says.

However, because of problems with the data TfL was using, passenger forecasts proved inadequate.

"Silverlink kept very poor statistics and had no real idea who was using the services," says Wallis. He notes that many passengers bought Travelcards at newsagents or other outlets, as few ticket offices were open at stations. As a result, the figures received from the station outlets did not necessarily reflect the actual patronage of the line.

With this disparity between projected demand and actual usage (particularly in the peaks), the '172s' have started to demonstrate that they simply aren't up to the job of transporting the vast numbers of passengers who use the line, despite having settled down as reliable DMUs.

As a result, TfL has now begun the task of procuring new three-car or (potentially) four-car DMUs (*RAIL* 697).

It might be seen as further confirmation that while the Mayor of London may be no

The DfT's current position

Jeremy Corbyn (Islington North) (Lab):
Does the electrification programme include
the electrification of the Barking to Gospel
Oak section of London Overground? I
had a meeting with one of her colleagues
about this some months ago. It would
make freight transportation from the east
of England easier, improve passenger
services, save a lot of money, and be
environmentally sensible. Will she go for it?

Justine Greening: That is not part of the electrification plans that we have announced today. Ultimately it is for Transport for London to fund it if it wants to do so, but I am sure that it will take on board the points that the hon Gentleman has made and, if the business case stacks up, might consider it.

Source: Questions to Secretary of State for Transport, Hansard, July 16 2012.



significant beneficiary of electrification is UK-wide freight traffic, and DfT should be progressing this scheme. As extra capacity is needed sooner rather than later, and because of the risk that electrification may not happen in the next Control Period (2014 to 2019), TfL is actively progressing three-car diesel trains on the line. To that

end we have recently published a "Periodic indicative notice" in the Official Journal of the European Union, seeking expressions of interest from rolling stock suppliers." Extract from TfL response to London Assembly member Jennette Arnold.

On March 21 2012, Freightliner 86607 and 86610 approach Woodgrange Park with a Tilbury-Crewe intermodal freight on March 21 2012. This is one of the electrified stretches - past this point on the line, the electric locomotives would need to be hauled or diverted elsewhere. ANTONY GUPPY.



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On August 5 2011, LO 172003 arrives at Leyton Midland Road with the 1702 Barking-Gospel Oak. Busier periods will mean that the passenger with the bicycle will struggle to board the train, especially at this time of day. ANTONY GUPPY.

→ stranger to dangling from overhead wires himself, he is less attached when it comes to the prospects of wiring the 10-mile Gospel Oak-Barking line.

In 2008, shortly after winning an election and initially ruling out electrification on the grounds of cost and engineering challenges - Mayor Boris Johnson took up the case for electrification with former Labour Secretary of State for Transport Andrew Adonis, although discussions quickly broke down.

The Department for Transport told TfL that it was prepared to provide £25 million to electrify the line. But Johnson responded that there was no money in the budget for TfL itself to make a contribution.

Electrification was not a TfL priority, he said, because the line had been re-equipped with new diesel trains. And because electrification would benefit rail freight, it would (in Johnson's view) need to be funded

More recently, Johnson disclosed that TfL had been in discussion with manufacturers about additional electric trains that could

What Boris says...

"The economic appraisal of Gospel Oak to Barking electrification has been undertaken by Network Rail. The Network Route Utilisation Strategy, Electrification, published by Network Rail in October 2009, showed a benefit:cost ratio for the scheme of 2.4:1, which is high value for money under DfT appraisal rules.

Funding for the electrification is a matter for the DfT but I have lobbied, and will continue to actively lobby, for this, Boris Johnson, written answer to question by London Assembly member Jennette Arnold, June 29 2012.

be used across the Overground network (including the Barking-Gospel Oak line), subject to electrification. This was borne out by his 2012 Mayoral Election manifesto, which committed to electrifying the Barking-Gospel Oak line and replacing its DMUs with eight four-car electric units, as well as increasing capacity elsewhere.

But as it stands, no one has committed the necessary cash to electrify an increasingly anomalous diesel-only line in the capital.

Current Transport Secretary Justine Greening did not announce electrification as part of her HLOS statement in July. And with the move to procure diesel units, it would appear that TfL does not expect it any time soon, either. It could still be possible during Control Period 5 (2014-2019), but in the meantime TfL urgently needs to address the capacity on the line... and that means longer DMUs

"One of the problems is that a comprehensive costing exercise has not yet been carried out," says Wallis, adding that the DfT had failed to contribute to a £400,000 GRIP3 study to establish electrification as a "properly defined project". While TfL was prepared to contribute 50% towards the cost of the study, the DfT refused to play ball, he says.

So the political wrangles continue regarding electrification. In the meantime, the line has become ever more overcrowded, more so than any of the suburban 'third rail' services (between Clapham Junction and Waterloo, for example) that are often cited as examples of Passengers In Excess of Capacity (PIXC).

Fortunately, for regular Gospel Oak-Barking travellers, an extra service - the 'PIXC-buster' - has been inserted into the timetable, from Woodgrange Park to Gospel Oak on Mondays to Fridays.

"Overnight maintenance requirements mean that they can just about send out seven

Even before the evening peak, the high demands placed on the two-car DMUs are in evidence on July 23, as 172003 arrives at Platform 2 at Upper Holloway with the 1605 Gospel Oak-Barking to collect eastbound passengers. ANTONY GUPPY.



On March 19, LO 172004 leaves Leytonstone High Road with the 1650 Gospel Oak-Barking. The subsequent 1705 departure will be a particularly busy service, highlighting the line's need for extra capacity. ANTONY GUPPY.

units in the morning peak, but for only one

"It's fair comment that London Overground doesn't send out too many units, so as to keep maintenance spares," he adds, while emphasising the group's "very good" working relationship with the operator.

BGOLUG Secretary Richard Pout believes that other passenger flows on the line have vet to be taken into account, saying: "TfL hasn't quite realised the full pattern of demand, such as the impact of Westfield [a large new shopping centre that has opened at Stratford's Olympic Parkl.

He also believes TfL is unaware of what he describes as the "third rush hour" - people going on elsewhere after work.

"We have ideas about changing the timetable - we've even suggested changes with rolling stock," he adds, citing the group's proposal to repatriate electric three-car Class 313s from the South Coast (since their earlier days on the North London Line, the units now



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and Aldgate East (LU)

to Enfield Town and Cheshunt East Coast **Gospel Oak - Barking line** Tottenham Hale to Enfield Tow Chingford and Cheshunt **Gospel Oak-Barking line** North London line Harringay Great Eastern Other NR lines Walthamstow Oueens Road London Underground **Leyton Midland Road** Crouch Hill **District and Hammersmith** Leytonstone High Road Liverpool Street **City Line** To Upminster (LU) Upper Holloway 6 South Tottenham London, Tilbury and Southend (NR) Manor Gospel Oak Harringay and Southend line **Green Lanes** Barking Willesden Stations Kentish Camden Road **Forest Gate** Note: For clarity some Stratford Liverpool Street lines/stations are omitted Fenchurch Street (NR)

work the East and West Coastway routes).

Such aspirations may be considered unobtainable, considering the units are now with a different train operator altogether (Southern), refurbished and configured for their new operator at great expense. It also ignores the broader issue of who will pay for the electrification infrastructure itself.

Current thinking seems to indicate that TfL is resigned to running Gospel Oak-Barking as a diesel-only line in the near future although electric-hauled freight is frequently 'dragged' through by diesel locomotives.

Tantalisingly for campaigners, parts of the line are electrified already - a short length from Barking to Woodgrange Park, and an electrified link between the Lea Valley Line at Tottenham South Junction and Seven Sisters Junction on the Enfield/ Southbury Line.

Despite the perceived wisdom that electrification can only be a positive move (and despite recent Government announcements to wire up more of the national network), it is not known whether TfL will pursue the case.

What is known is that, despite TfL including electrification of the line in its HLOS recommendations to the DfT, it concedes that passenger services will not be the principal

In a letter to Adonis, responding to the DfT's offer of £25m, London Transport Commissioner Peter Hendy wrote: "The business case shows that TfL is not the main beneficiary." Instead, he said the biggest single benefit would be "reduced emissions by UK" rail freight traffic across England as a whole".

Yet the DfT omitted to consider the imminent opening of the London Gateway port (in Thurrock, Essex), from where freight trains would join the line at Barking to reach the rest of the electrified network.

"There are a number of holes in the DfT's logic in the HLOS," claims Wallis. "While championing the provision of an electric spine from the port of Southampton to the Midlands and beyond for freight and passengers, there is no mention of the 15 miles or so of electrified railway required to link the 30 daily container trains soon to start flowing from the new Thames Gateway Port at Thames Haven

"The DfT is prepared to invest in wiring up



A visitor to the line during early summer was 172102 from Chiltern Railways, seen here waiting at Barking with the 0947 to Gospel Oak on June 6. The unit was hired to cover for an LO '172' that had been sent back to Derby for rectification of saloon floor faults. BARKING GOSPEL OAK LINE USER GROUP

Acton to Willesden at one end of the North London Line, but not Gospel Oak-Barking at the opposite end."

The user group also questions whether the £200m that has been ring-fenced for the Strategic Freight Network could fund the electrification of Barking-Gospel Oak.

"The total cost, including wiring up the Thames Haven branch, would not exceed £50m," claims Wallis.

There remains plenty of hope for the Barking-Gospel Oak line, with healthy passenger numbers, refurbished and refreshed stations new trains and especially an active user group that wants the best resources for the line. Visible staffing and ticketing integration with the rest of the TfL network add to the positives (a far cry from the line's nadir under British Rail custodianship and the early days of privatisation under Silverlink).

Increased capacity is the key, and TfL has set about remedying the immediate problem. Whether or not the fragmentation caused by privatisation has influenced the current stagnant state of affairs remains to be seen, with neither the DfT nor TfL seeing Barking as their own priority for funding.

No single body with responsibility for railways assumes the responsibility for electrification, which will benefit passengers and freight traffic alike. But while freight (according to the business case) is the main beneficiary of electrification, passengers will also benefit from any initial investment.

They would be able to enjoy longer, lighter and potentially more frequent trains on a route running overworked two-car DMUs that are more suited to a rural backwater, and increasingly out of place on an intensive highcapacity, high-frequency, electrified railway, R

44 By putting the line on the Tube map, we knew patronage would rocket. 77

Glenn Wallis, Assistant Secretary, Barking Gospel Oak Line User Group

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