

# Riding the wrong horse

## **Introduction**

In June 2022, the Department for Transport [published](#) its thinking on HS2 northwards from Crewe. The report lays bare the consequences of the decision to drop the so-called ‘Golborne spur’, but to press on with a new line from Crewe to Manchester regardless. The report paints a sorry picture which we summarise and assess here. We find a planning vacuum, with scarce investment resources being mis-directed.

Departmental drafters have done their best to explain in the June report what’s happened but obviously can’t write about the politics that led to Golborne being dropped. Instead, they refer to the Government’s [Union Connectivity Review](#). This had made much of the opportunity to shorten Anglo-Scottish rail journey times, and so bring about a major switch from domestic air to high-speed rail – and had questioned whether the Golborne spur might need to be extended northwards beyond Wigan to Preston. But it didn’t call for Golborne to be dropped in the meantime.

### **Union Connectivity Review on Linking HS2 with the WCML**

“The UK Government has already acknowledged some of the issues identified by the Review. The ‘Golborne Link’—the current proposed connection between HS2 and the WCML—is expected to deliver quicker journey times and more capacity between England and Scotland and resolve some of the constraints between Crewe and Preston. However, the ‘Golborne Link’ does not resolve all of the identified issues. The suitability of alternative connections between HS2 and the WCML have been considered by the Review. The emerging evidence suggests that an alternative connection to the WCML, for example at some point south of Preston, could offer more benefits and an opportunity to reduce journey times by two to three minutes more than the ‘Golborne Link’. However, more work is required to better understand the case for and against such options.”

**Source: *Union Connectivity Review Final Report***

## **Evaporating Benefits**

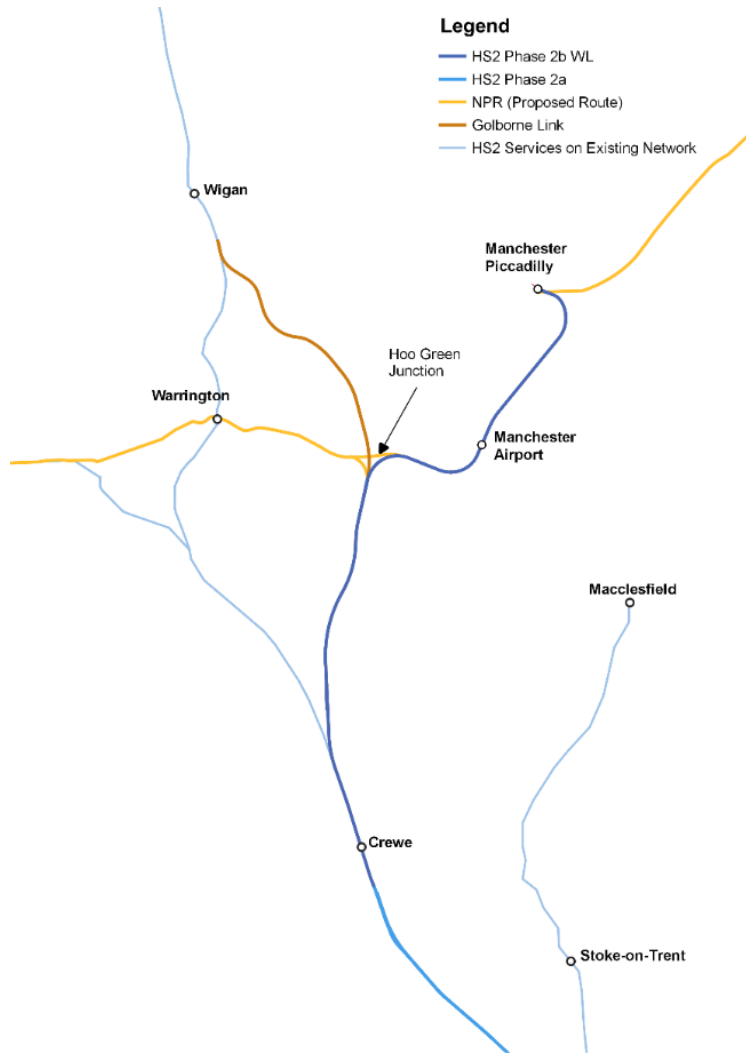
Removing the Golborne spur lays bare the harsh realities. The Crewe-Manchester HS2 scheme standing on its own brings only modest benefits:

“When the updated economic analysis for the Phase 2b Western Leg scheme without the [Golborne] Link is considered, ... Value for Money ... is... ‘poor to low’.”<sup>1</sup>

The reference case benefit cost ratio (BCR) for Crewe Manchester HSR drops below 1.0: in fact it’s just 0.7.

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<sup>1</sup>HS2 Phase 2b Western Leg Crewe - Manchester Supplement to the Update on the SOBC, DfT June 2022. para 2.13



Source: *HS2 Phase 2b Western Leg Crewe – Manchester, Supplement to the Update on the SOBC, DfT June 2022*

On the other hand, adding the Golborne ‘spur’ back in offers much better value for money: “delivered incrementally to the Phase 2b Western Leg (Crewe-Manchester) investment...[its] reference case BCR... would be 1.4.”<sup>2</sup> as the June 2022 reports states:

“The fall in benefits and revenues when the Golborne Link is removed is attributed to the reduction in services to Scotland (from two to one ... [per hour] ... from London, and none from Birmingham). This means there is less mode shift occurring along these routes from road, aviation and conventional rail, and there are fewer generated trips compared to the do-minimum.”<sup>3</sup>

Not only is the cost benefit case damaged by leaving out Golborne. The carbon impacts are transformed for the worse too:

<sup>2</sup> In such a situation, services using the Golborne spur would make use of the common section of HS2 route southwards to Crewe and onwards further south.

<sup>3</sup> Technical Annex paragraph A5 *op cit*

“the carbon impacts [of Crewe-Manchester without Golborne] **increase** operational and mode shift greenhouse gas (GHG) emissions ...[by]... approximately 330,000 tCO<sub>2</sub>e.<sup>4</sup> ..This compares to the ... Phase 2b Western Leg with Golborne ...[which leads to a] **decrease** [in] operational and mode shift GHG emissions of 750,000 tCO<sub>2</sub>e.”<sup>5</sup>

This shows that not only are the connectivity benefits from Crewe-Manchester poor value for money compared with those delivered by the scheme including the Golborne spur, but also that HS2 Phase 2b carbon reduction benefits are derived from the speed-up of services over the Golborne link and the extra capacity that this part of the scheme provides, not the route into Manchester. In summary (against a base which includes Manchester and Golborne):

“[without the Golborne spur] there is ... a reduction in mode shift ..[to rail].. from road and air as a result of fewer and slower services to Scotland.”<sup>6</sup>

Improved and expanded services using the Golborne spur generate significant carbon benefits by attracting travel from air and road.

### ***No released capacity***

One of the main benefits of new high-speed rail lines is that they can liberate capacity on existing lines that no longer have to accommodate longer distance non-stopping trains. The Department’s June 2022 paper ponders whether, for example, once the Crewe-Manchester HS2 line is in place, the planned hourly HS2 service from London to Stoke and Macclesfield might be extendable to Stockport and Manchester on existing lines. But while this seems to improve the Phase 2b BCR, even this modest service extension apparently requires curtailing the hourly Southampton-Manchester cross country service to make room for it.<sup>7</sup> What’s missing is a wider plan for re-using the existing network.

In this planning vacuum, there is no other discussion of consequential changes and improvements on the existing Crewe-Manchester line via Stockport. In short, Crewe-Manchester HS2 line is being assessed as a free-standing project bringing no capacity relief gains for other rail services in the area.

Actually, it’s worse than that. Places along the existing line will experience some critical *disbenefits* from the Phase 2b scheme. When Phase 1/2a is fully operational, three HS2 London-Manchester trains each hour are expected to use the existing Crewe-Manchester line with selected stops at Stockport/Wilmslow stations *en route* (as per today’s Pendolino services). But when Phase 2b opens, Wilmslow and Stockport will lose their HS2 London trains.

Plans for the Crewe-Manchester high-speed line without the Golborne connection show only 5 trains/hour (three to London, and two to Birmingham Curzon Street). They will offer a time saving over existing trains, but this is partly achieved by omitting intermediate stops (at Stockport, Wilmslow, Crewe etc). With no thought given to service restructuring on existing lines (which might in turn entail some infrastructure changes), it is no wonder that the benefit calculation (which takes into account all effects positive and negative) is so dismal.

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<sup>4</sup> Para 2.31 *op cit*

<sup>5</sup> Para 2.32 *op cit*

<sup>6</sup> Technical Appendix Para A17

<sup>7</sup> Nonetheless, the report claims there would be an increase in benefits attributable to the project from this service change.

### ***The main line and its spur***

It is wrong to think of the route north to Golborne as a 'spur' or a branch off the HS2 main line. Really the London-Glasgow/Edinburgh route is the main line (comprising HS2 and the northern part of the West Coast Main Line): Crewe-Manchester is an (important) branch off it. This isn't just a question of nomenclature. The benefits of extending northwards towards Scotland (Golborne) are greater than those achieved by creating a new high-speed Crewe-Manchester line, much of which, by the way, would necessarily be speed-restricted through its lengthy tunnelled approach into central Manchester.

### ***Capital costs***

So let's turn to the question of costs: does removing the Golborne spur allow a significant saving in capital outlay? Surprisingly, it seems not.

The capital costs for HS2 Crewe-Manchester without Golborne are stated as being in the range £15-22bn.<sup>8</sup> With the Golborne link taken off the table, a study is promised to consider other options for the Anglo-Scottish route northwards in its absence. This work is to be taken forward by DfT/HS2 Ltd and Network Rail who will 'engage with the Scottish Government'.<sup>9</sup>

A budget allocation has been identified for the options this work on 'alternatives to Golborne'. Interestingly, this expenditure would apparently need to cover not just the costs of the replacement of, or modification to, the Golborne spur<sup>10</sup>, but also works required over the West Coast Main Line to support the operation of the planned Anglo-Scottish HS2 services. These include:

- Significant works at each of Preston and Carlisle where 400m long platforms will be needed
- A depot at Annandale for HS2 trains
- Other unspecified changes along the length of the Crewe-Glasgow/Edinburgh existing line.

But what the DfT's June 2022 report makes clear is that the budget for the Golborne spur replacement *and*, it would seem, at least some of these other West Coast Main Line costs, is very modest. It says capital expenditure should not exceed £2-3bn in total, in order to comply with the £96bn Integrated Rail Plan budget ceiling. But since the *discounted* capital cost of the Golborne spur is stated in the June report to be £4bn<sup>11</sup>, clearly the undiscounted costs of the (removed) Golborne spur alone must be at least £4bn, say around £5-6bn. An accountancy explanation might be that in removing the Golborne spur, some of its costs have been 'transferred' to the estimate for the surviving Crewe-Manchester line.

Any substitute for the Golborne spur (such as a line of route upgrade) that might be examined as a suitable replacement has a budget allocation capped at below the expected cost of the original spur. So, it would not be possible, for instance, to conclude in due course that the best approach would be simply to re-instate the Golborne spur as designed because to do so would be inconsistent with the allocated budget. Any substitute, far from being a lengthier scheme as the Union Connectivity Review envisaged, would need to be shorter.

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<sup>8</sup> Para 2.43 *op cit*

<sup>9</sup> Earlier studies commissioned in response to the joint Holyrood/Westminster ambition of working towards a 3-hour Glasgow-London journey time had also involved Transport Scotland.

<sup>10</sup> Which might include for instance tunnelling the Golborne link to mitigate local objections

<sup>11</sup> See Technical Annex Figure A1, *op cit*

There is no mention of separate funding to be made available to implement the Union Connectivity Review's conclusions, which featured rail investment north of Crewe towards Scotland as the first of its several key recommendations across the transport modes. If this does emerge later it will no doubt be welcome, and let's hope that by then the need to respect the Integrated Rail Plan £96bn budget will be quietly forgotten.

### ***Serving Crewe and Manchester***

There is no mention of a north side connection at Crewe to allow trains from the Phase 2b route from Manchester (or indeed from other north of Crewe locations if a suitable variant of the Golborne link can be found) to call at Crewe station. But it appears that "the Northern Connection (at Crewe) is part of the Northern Powerhouse Rail programme rather than HS2, although it is included in the HS2 Hybrid Bill" according to papers presented to the Transport for the North Board on June 30<sup>th</sup>. In other words powers to construct the connection will be sought in the HS2 Bill, but the question of how such a scheme would be funded is for another day. In its absence Crewe will be restricted to the 2 trains/hour HS2 service plan that it will see on HS2 service commencement.

As regards Manchester, Transport for the North and the Manchester authorities have contended that Piccadilly HS2 station should be built below ground level and designed as a through station. The Phase 2b plans provide for a lower cost terminating, above-ground level station at Piccadilly. This HS2 part of the station is not going to be connected to existing Network Rail lines. Trains can only return back to Crewe over the HS2 Phase 2b upon arrival.

True, a further, largely tunnelled line could be added later (Northern Powerhouse Rail, pointing north east towards Huddersfield), but this would have to await its turn for legislation and funding, and the 2050s would seem to be its earliest possible opening decade.

[Greengauge 21](#) pointed to the merits of a through (underground) station design at Piccadilly four years ago that would have also lent itself to creating a new cross-Manchester route for NPR services as well as accommodating HS2 services. The current Phase 2b HS2 plans for Manchester bring no solution to the current problems and limitations of the rail network in central Manchester, nor do they provide a basis for speeding up NPR journeys from Liverpool to Manchester at a later stage.<sup>12</sup>

But the contention here isn't about the fact that local stakeholders at either end of this section of the planned HS2 route would have liked to see a commitment to more expensive transformations of Crewe and Manchester Piccadilly stations respectively. Such propositions may bring greater benefits of course, but DfT and Ministers have judged that such gains would be outweighed by significantly greater capital costs and lengthier build programmes. Absent a wider plan, the opportunity to evidence such gains is lost.

### ***Implications***

On current plans, the next stage of HS2 will cost £15-22bn and bring a much lower rate of measurable benefit in both economic and greenhouse gas reduction terms than HS2 Phases 1 and 2a provide.

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<sup>12</sup> The June 2022 paper shows a Northern Powerhouse Rail scheme to add a link to Warrington from the Manchester-Crewe HS2 line at a later stage. This is the remaining vestige of a bigger scheme developed by Transport for the North to create a third main route between Liverpool and Manchester. One of the existing Liverpool-Manchester lines is already routed via Warrington, so it has never been clear what this would achieve even if it was fully built out since it couldn't compete with existing journey times on the very direct route via Newton-le-Willows.

The Golborne link from the Phase 2b scheme has been dropped for political reasons and has left the problem of promoting a scheme the value of which is, at best, questionable. Of all the possible uses of £15-22bn in taking forward projects considered in the [Integrated Rail Plan](#), this diminished Crewe-Manchester project would not be an obviously high priority.

The funds left to contemplate what is to be done in the absence of the Golborne link fall hopelessly short of what is needed to improve infrastructure northwards from Crewe to Scotland – the ‘main line’ which should be the focus of attention. This is because:

- It is here that there is the scope to create faster rail times that can bring about *significant carbon reduction*, building on the committed investment in HS2 phases 1 and 2a with less need for both air travel and car travel over the generally longer distances involved in cross-border Anglo-Scottish travel
- And it is here too that *more rail capacity is needed most*, including for the longer distance freight flows in the corridor.

These are the underlying most important strategic objectives for the next stage of HS2 development on the western side of the country. Shaving just a few further minutes off the Phase 1/2a HS2 London-Manchester rail journey time can't be the number one priority.

The decision to progress with a Crewe-Manchester HS2 Bill shorn of its facility to connect northwards towards Scotland makes no sense. Having created a London-Crewe high-speed line (HS2 Phases 1 and 2a), the policy priority is surely to ensure that HS2 can support better and expanded cross-border rail services. High-speed services for passengers can reduce the need for domestic air travel, and the capacity freed up by HS2 for more railfreight south of Crewe needs to be made available northwards to accommodate the switch of 350 mile+ HGV movements from the national motorway network to electrified rail, a switch essential for NetZero.

### ***Regional rail strategies are needed to frame rail investment projects***

Of course, HS2 services will still need to reach Manchester and the existing Crewe-Manchester railway will be used for this purpose from the early 2030s onwards. It is level and largely straight, and capable of accommodating the necessary train paths. With some relatively modest investment, it can provide line-speeds of 200km/h+. Some junction improvements would no doubt be desirable in the Stockport area. And it would make sense to provide the long platforms that HS2 trains need at Piccadilly (and at Stockport too).

All this should be planned not as a stand-alone HS2 project but as a Manchester area rail strategy, designed to get the best value of whatever investment is needed for the range of rail services in the area. This common sense approach has been sadly absent in HS2 (and Northern Powerhouse Rail) planning. There has been no regional/sub-regional strategic planning, only a project-level attempt to marry Northern Powerhouse Rail aspirations with HS2 alignment plans. As a result, the current Phase 2b station plan at Piccadilly, for example, makes no contribution to tackling the limitations of the rail network in central Manchester.

A needs-must approach which looked to upgrade the existing Crewe-Manchester route for a sensible price instead of building HS2 Phase 2b could bring a very wide set of benefits to the city region, not just a new facility for HS2 trains. And it would leave some spare capital investment budget to make real progress northwards from Crewe to Preston and Scotland.

## ***Conclusions***

The decision to drop the Golborne spur leaves us riding the wrong horse, off to Manchester Piccadilly instead of onwards to Preston, Carlisle and Scotland.

Some might hope that the decision taken about the Golborne link could be re-visited in due course. But lead times are long, and anyway there seems to be an inadequate capital budget to examine the alternatives to it.

The damage to the Anglo-Scottish component of HS2 (which is really where it delivers for the nation as we have seen) could take decades to put right. Phase 2b into Manchester has a delivery decade of the 2040s; England-Scotland has been relegated to the 2050s or beyond. It's a long time to be riding the wrong horse and in the meantime a waste of scarce capital budget.

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