

# Electric Railway Charter

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**Rt Hon Chris Grayling MP, Secretary of State for Transport,  
Great Minster House, 33 Horseferry Rd, LONDON, SW1P 4DR**

12 December 2018

Dear Secretary of State,

The Electric Railway Charter is a campaign founded earlier this year by four campaigning rail user groups on the Calder Valley Line supported by the Yorkshire and North West branches of Railfuture. Following the TransPennine Route Upgrade we seek implementation of the recommendations of the Northern Electrification Task Force (NETF) which, chaired by Andrew Jones MP, reported to your predecessor in March 2015. The Calder Valley Line was, of course, the top-ranked scheme in the NETF list of schemes recommended to follow (implicitly) the TRU.

We are very concerned about recent media reports relating to the TransPennine Route Upgrade (TRU).

We know that a high level of investment is promised, and we are eager to hear your announcement of details. It is important that that the opportunity is not missed to create a railway that is truly modern, future-proof, delivering high performance for passengers – and freight – with clear business and economic benefits, whilst ensuring that rail plays its full part in improving air quality and combatting climate change. (The last point is very much in our minds with “COP24” currently in progress in Poland, which we all hope will come out with real action to limit global warming.)

**Please will you authorise the fullest version of TRU, including complete electrification and delivery of additional track capacity at key points? Will you also then confirm that railway electrification across the North will continue, with the NETF recommendations as guide to priority?**

The immediate scheme, TRU, is about both performance and capacity. These are vital for the Northern economy improving connectivity for business, work, leisure and cultural activity (the last two surely increasingly important to future growth). Communities across the region must not have to await a new “ultra” high speed route that looks to be still decades away. The need to encourage modal transfer from congested roads to modern, sustainable rail is urgent. And it is not just about city-city journey times.

Where there is a mix of express, stopping and freight trains there are obvious physical limits to the additional capacity that can be offered by digital signalling. Additional loops and sections of reinstated 4-

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track (where capacity was short-sightedly removed some decades ago) are essential to allow parallel movements and fast trains to overtake stoppers.

**Wider capacity benefits:** Moreover, the capacity aspect of TRU is not just important for the York-Leeds-Huddersfield-Manchester TransPennine route itself. It will also benefit linked routes including the Calder Valley (CV) line which joins the Huddersfield route at Heaton Lodge Junction (Mirfield) and serves Calderdale, Rochdale and East Lancashire. As well as operating via Bradford, CV services use the Brighouse corridor towards both Huddersfield and Leeds. Lack of capacity on the 2-track line between Huddersfield, Mirfield and Ravensthorpe seriously inhibits the possibility of a good timetable from the upper Calder Valley, Bradford and Halifax via Brighouse. Yet the Brighouse-Mirfield Line is potentially the fastest route from upper Calderdale, a major commuting area, towards Leeds. This week's timetable change is a good illustration of the problem. The hourly Huddersfield-Halifax-Bradford-Leeds service has been retimed in one direction with some benefits; but an unwanted result has been loss of a good path for the service the opposite way resulting in an increasing journey time from Halifax to Huddersfield to more than half an hour, a 10-mile journey with running time no more than 21 minutes. This directly relates to lack of capacity and junction conflicts on the 2-track route Bradley Junction to Huddersfield (and the short single track "Bradley curve").

Brighouse currently has a service that is little better than hourly, yet ORR footfall figures show that it has had the highest percentage growth in usage of any Calder Valley Line station over ten years. Growth is now constrained by poor quality train service. Brighouse and neighbouring Elland (where a new station is planned) are expected to see major business and residential growth, and this must be supported by better rail services for commuters to Leeds and Manchester and for incoming business. It is reasonable to expect an increase from hourly to half-hourly on both routes Bradford-Huddersfield and upper Calderdale-Leeds. There is also clear demand for new direct services that would be routed via Brighouse from upper Calderdale to Huddersfield.

All of this requires the additional capacity that is offered by TRU increasing from 2 to 4 tracks between Huddersfield and Ravensthorpe.

### **Electrification – for business and environment**

It is understood that there will be disruption during the work, though we also believe that some reports earlier this autumn may have exaggerated this. If sections of route are under possession for extended periods it must make sense to do a complete job including electrification.

Electric trains have better acceleration and hill-climbing and are more reliable than diesels or complex bimodes. Electrics improve air quality; they reduce noise on trains, close to the line and in stations; they reduce carbon-dioxide emissions. Particularly over the hilly routes of the Huddersfield (TransPennine) Line and Calder Valley Line, basic physics dictates that bimode electro-diesel trains will not perform as well as a pure electric; diesel bimodes are inherently inefficient in energy terms having to carry additional mass of engines and fuel tanks as well as electrical transformers. In pursuit of higher performance more powerful diesel engines might be employed but this will mean greater mass and greater fuel consumption, and ultimately be counter-productive and more wasteful of energy. Energy wastage is surely particularly reprehensible when we must all be seeking to reduce energy consumption in the interests of the local and global environment as well as reducing business costs. Electric trains are of course cheaper to buy and cheaper to operate.

In the longer term, diesel bimodes represent a poor business decision.

It would surely be folly to leave a section such as Huddersfield to Stalybridge (17 miles) unelectrified, and then need to come back and belatedly put up the wires in 10-15 years' time. The same is true of the quite short 13-mile section between Leeds (Neville Hill) and York (Colton Junction) which would be relatively simple to electrify and would have massive advantages as an alternative route for the East Coast Main Line.

The Electric Railway Charter (about which we attach further information) does not dogmatically state that every mile of route must be wired.

Trains with a modest amount of battery storage can bridge the gap for example through tunnels that are left unelectrified or as earthed neutral sections. This is self-evidently more efficient than diesel, and batteries are a more efficient means of storing and converting electrical energy than the use of hydrogen and fuel cells. (Hydrogen has yet to be proven as a widespread energy store for rail use; there may indeed be safety aspects to consider with hydrogen tanks on board trains.) Such gapped electrification might apply to Standedge Tunnel (3 miles) on the Huddersfield-Stalybridge Line or Summit Tunnel (2 miles) on the Calder Valley Line. It is possible to insulate bridges and other structures to reduce the need for bridge-raising/track-lowering (there is an award-winning example of Cardiff Intersection Bridge on the GWML<sup>1</sup>). There are new forms of OLE support that combine structural and electrical insulation functions and improve aesthetic quality<sup>2</sup>. Future electrification will be easier and cheaper. Better ways of electrifying through tunnels include overhead conductor rails instead of wires

We seek smart electrification that will be less disruptive to install and economical in operation. The long-term economics are of course obvious: electric trains are cheaper to buy than diesels, much cheaper to buy than diesel bimodes, cheaper to operate, better performing with lower energy consumption. Quieter, cleaner and faster (yes faster), they are more attractive to passengers.

We look forward eagerly to your response.

Yours sincerely

[by email]

**Stephen Waring**

Chair, HADRAG

**Nina Smith**

Chair, UCVRSTG

Copies to:

- local MPs;
- TfN, WYCA, TfGM;
- Calderdale, Kirklees, Rochdale and Bradford council leaders;
- media.

<sup>1</sup> [https://glscoatings.co.uk/pdfs/GLS100R\\_Rail\\_Brochure.pdf](https://glscoatings.co.uk/pdfs/GLS100R_Rail_Brochure.pdf)

<sup>2</sup> <https://www.mottmac.com/releases/mott-macdonald-and-moxon-unveil-prototype-for-innovative-integrated-overhead-line-structure>

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