

HS2 fails the Northern Powerhouse Challenge

The Northern Powerhouse is the Government's programme to transform the economic performance of the North, and the development of 'HS3' transpennine high speed rail links is crucial to improve connectivity between the region's principal cities.

Leeds, Sheffield and Manchester lie at the heart of the Northern Powerhouse, and it is the improvement of rail links between these 3 cities that will determine the fundamental shape and performance of Northern Powerhouse Rail (NPR).

The HS3/NPR concept arose from the failure of the original HS2 proposals to provide improved transpennine links or even to recognise the need for such links; yet the routes and stations proposed for HS2 in the Northern Powerhouse region are to be adopted as basic building blocks in the development of NPR.

The folly of this disjointed approach is exemplified by HS2's proposed terminus stations in Leeds and Manchester. These would not allow the running of through services e.g. from Hull to Liverpool, vital for efficient links between Northern cities. Also, the easterly alignment of HS2 through Yorkshire is incompatible with any single 'HS3' transpennine high speed line, which might link Manchester to Leeds *and* Sheffield. This leads to a general failure to meet the full Northern Powerhouse journey time specification – see opposite – and a requirement for 2 separate new transpennine routes, each with a tunnel over 30km long.

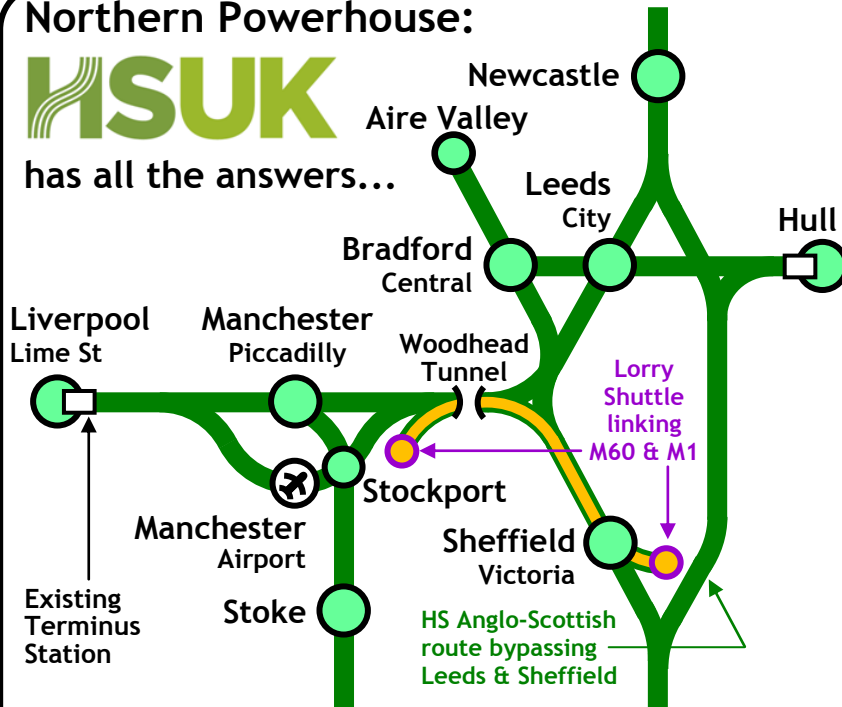
In complete contrast, HSUK's transpennine high speed route via Woodhead achieves all of the journey times and the capacity and connectivity gains specified for the Northern Powerhouse, including direct links from all major cities to Manchester Airport.

HSUK's detailed cost comparisons indicate that its proposals to interlink Manchester, Leeds and Sheffield will cost around **£7 billion** less than the disjointed and uncoordinated HS2 and NPR schemes. This applies either to the previous proposals serving Sheffield Meadowhall or to the latest serving Sheffield Midland.

Northern Powerhouse:



has all the answers...



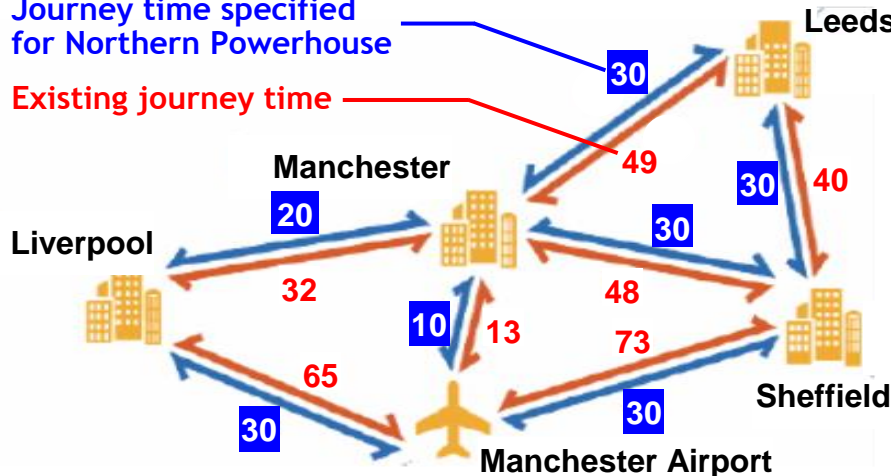
HSUK journey times (in minutes) vs 'HS3' specification

Between:	HS3	HSUK
Manchester - Leeds	30	26
Manchester - Sheffield	30	23
Manchester - Liverpool	20	19
Sheffield - Leeds	30	19
Leeds - M'ch'r Airport	40	37
Sheffield - M'ch'r Airport	30	34
Liverpool - M'ch'r Airport	30	26
Leeds - Newcastle	60	51
Bradford - Sheffield	N/A	26
Bradford - Manchester	N/A	33

Cost of Manchester/Leeds/Sheffield links: **£10.0 billion**

Journey time specified for Northern Powerhouse

Existing journey time



HS3/Northern Powerhouse Journey Time Specification -

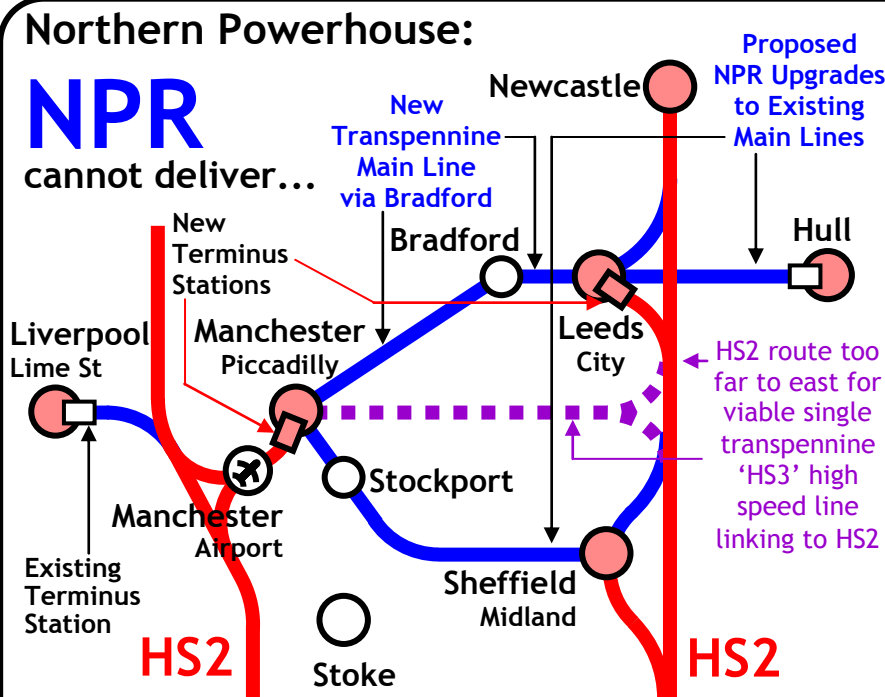
now abandoned by Transport for the North

(Sketch developed from figure, P19, *The Northern Powerhouse: One Agenda, One Economy, One North*, DfT, 2015)

Northern Powerhouse:



cannot deliver...



HS2/NPR journey times (in minutes) vs 'HS3' specification

Between:	HS3	NPR
Manchester - Leeds	30	30
Manchester - Sheffield	30	40
Manchester - Liverpool	20	28
Sheffield - Leeds	30	30
Leeds - MAN Airport	40	47
Sheffield - MAN Airport	30	60
Liverpool - MAN Airport	30	28
Leeds - Newcastle	60	70

Cost of Manchester/Leeds/Sheffield links: **£16.7 billion**