October 2011

Friends of the Earth

Briefing

High Speed Rail

Friends of the Earth's views

Introduction

All three main political parties currently support building a London-Birmingham link (HS2) as the first stage of a High Speed North-South rail line linking London with the north of England . The Government wants to pass legislation so construction of the line can start in 2015 and held a public consultation on the case for High Speed Rail earlier this year.

Phase 1, the line from London to Birmingham, could open in 2026. New trains will be designed to run on both high speed and existing lines so some destinations north of Birmingham will benefit from slightly shorter overall journey times from 2026. Planning for phase 2 of the line to Manchester, Leeds and Heathrow has started, there will be a public consultation in 2012, it could open in 2033.

High speed trains are considered more climate-friendly than planes, but still have considerable environmental impacts. The new line(s) will cost billions of pounds to build and construction itself will have huge environmental implications.

Friends of the Earth's views

- Investment in faster, better rail travel is urgently required, but the current high-speed rail plans will do little to cut climate-changing emissions – and may even increase them - nor will they entice many people out of planes and cars.

- We believe that the Government's priority should be to upgrade our existing overcrowded rail network – so that ordinary travellers can benefit from better commuter and longer-distance services.

- Much more must also be done in the short term to improve other public transport, encourage greener motoring and boost cycling and walking for short distances - which is better for our health and the environment.

- If the High Speed Line is built, policies must be put in place to ensure the line helps cut carbon through shifting people from cars and planes to rail.

This briefing was updated in October 2011. It looks at the key issues and gives Friends of the Earth's views. Friends of the Earth supports The Right Lines Charter[1]

Q. Will the high speed line cut carbon emissions from transport?

A. No, not by much, if at all. Other transport improvements will achieve more and should be a more urgent priority. HS rail could help a little but only if other policies change.

The environmental impact assessment showed that HS2 will be broadly neutral in carbon terms[2]. This is because although it will take some passengers away from more carbon intensive domestic flights it will generate many new journeys and will take passengers away from existing (less carbon intensive) conventional rail services[3].

Also, the assessment did not assume the introduction of any policies to encourage passengers to switch from cars and planes to the train - like higher taxes on motoring and domestic flights. Carbon savings might be greater if the route were later extended to the North of England and beyond to Scotland. On the other hand, if a shift to rail means scarce airport runway slots are instead allocated to more polluting long haul flights overall emissions could increase.

In any case, the vast majority of emissions from UK domestic passenger transport are from short journeys[4]. High Speed Rail will not be an alternative for these trips. Transport carbon reduction policies should prioritise providing low carbon alternatives for these journeys.

Friends of the Earth believes that, at best, building a High Speed Line is a very expensive way of making a small cut in carbon emissions from transport. Although it is a better way of spending money than building new roads or expanding airports, there are cheaper and quicker ways to cut carbon from transport and these should be the Government's priorities.

Q. How much will a High Speed line cost to build?

A. About £16 billion for a London – Birmingham route and £30 billion in total for the whole Y-shaped network from London to Manchester and Leeds.

- These are huge sums of money. For example, £2 billion would pay for a 10 year phased roll out of 'Smarter Travel Choices' schemes across the whole of the UK[5]. These proven schemes use marketing and promotion to cut car journeys by encouraging walking, cycling and public transport use. The Committee on Climate Change estimates that this would save 2.9MillionTonnes (Mt) of CO2 per year[6] while the High Speed Line to Birmingham would save a maximum of 0.41Mt.

- Friends of the Earth believes it is vital that the building of HS2 does not mean funding is taken away from other, more important, transport priorities. Funding to maintain and

improve the existing rail network must continue alongside investment in buses, walking and cycling and other initiatives to cut carbon from transport.

Q. But if High Speed 2 goes ahead, how can its potential environmental benefits be maximised?

A. The electricity grid must be de-carbonised and companion policies must be put in place to ensure significant modal shift from air and road:

- Fiscal measures must be introduced to make rail the cheapest mode compared to flying and driving, but at the same time discourage long distance commuting. Possible measures include road pricing, fuel tax on domestic flights and no season ticket discounts on the high speed line
- The line must link with the Channel Tunnel rail link (HS1) so direct trains from cities North of London to continental Europe can provide a viable alternative to flying
- Capacity freed up on existing rail lines (like the West Coast Main Line) must be used to run more freight and passenger trains in order to maximise the modal shift to rail
- Any airport runway slots released through modal shift must be retired – extra capacity would give airport schedules more resilience to disruption (i.e due to bad weather)

Q. What about the impact on sensitive sites, e.g the Chilterns and Warwickshire?

A. The line must not go through protected sites like Sites of Special Scientific Interest (SSSIs – the UK's highest wildlife designation) and impacts on the landscape must be avoided where possible or else minimised.

The impact of the chosen route has been reduced by proposals for tunnels under some sensitive landscapes. However, there will still be considerable visual and noise impacts. Friends of the Earth believes that alternatives to the chosen route should still be considered, including locating it alongside motorways.

There will also be implications for farming and biodiversity and these impacts will need to be part of the full consultation as will the severance that a project of this nature will impact upon farming practices and movement for wildlife.

Q. What about the impact on communities?

A. The impact of the route on communities must be minimised, and adequate compensation must be provided.

Whatever route is chosen, it is inevitable that some communities will be adversely affected, homes may have to be demolished etc. Where this happens, adequate compensation must be provided. It should be noted that the Government has launched an 'Exceptional Hardship Scheme' which in some cases will mean property on the route could be purchased by the Government. It is likely to remain open until late 2011[7].

Q. What about links with other transport?

A. Stations must be located in city centres rather than 'out of town'. To maximise modal shift, high quality public transport and walking and cycling links to HS2 stations must be provided. Direct links to airports should not be a priority.

Phase 1 of the Coalition Government's High Speed Rail proposal (London to Birmingham) will allow access to Heathrow Airport via an interchange station at Old Oak Common in West London on the planned Cross Rail line. Phase 2 of the high speed rail network will contain a spur line to Heathrow as well as the Y-shaped extensions beyond Birmingham to Leeds and Manchester. Friends of the Earth does not believe direct airport access should be a priority. More important in our view is a direct link with HS1 and the Channel Tunnel so that through rail services to continental Europe can provide an attractive alternative to air travel from other parts of the UK.

At Birmingham, it is vital that the proposed link to Birmingham City centre is not axed in any cost cutting exercises. This would undermine the regeneration of the City Centre and links with other public transport. It could also mean that the proposed Birmingham airport interchange station would become a new development catalyst to add to the pressures in that area which include not only the airport but The NEC, Birmingham Business Park and the M42 / M40 development corridor in general.

Q. Does HS2 mean the end to road building and airport expansion?

A. Not at the moment. The coalition Government is committed to catering for an increase in air traffic and to some road building.[8]

Labour's Aviation White paper of 2003 encouraged expansion at most UK airports.

The Coalition Government has ruled out new runways in the South East but has not ruled out expansion of regional airports. A new draft aviation policy scoping document is out for public consultation[9] until October 2011, this will eventually replace the 2003 white paper.

In the recent Comprehensive Spending Review, Ministers confirmed that funding for a number of schemes to increase road capacity will go ahead. These include the M62, M25 and A11. The Government is also considering inviting the private sector to build toll roads.

Friends of the Earth believes airport expansion must end and that road building must be the policy of last resort if we are serious about cutting carbon emissions from transport.

Q. What should be the priorities for Government transport policy over the next 10 years?

A. There is an urgent need to dramatically cut overall carbon emissions, yet current Government transport policy will do little to help achieve this. Whether or not High Speed Rail goes ahead, Friends of the Earth believes we need a much more ambitious strategy to cut emissions from transport in the short term. There is huge potential to encourage rapid travel behaviour change, the Government must put in place the policies to enable this to happen.

Transport policy must prioritise cutting carbon, and it should aim to reduce the need to travel and encourage the use of low carbon modes for the journeys that remain. The majority of transport carbon emissions are from cars and the potential for behaviour change is huge:

- More than half of car journeys are less than 5 miles
- The vast majority (85%) of commuter cars carry just one occupant[10]

So Government policy should:

1. **Encourage greater use of the low carbon alternatives to the car, through:**
    - Improving the low carbon alternatives to single occupancy car journeys:
        - Walking
        - Cycling
        - Public Transport
        - Car sharing
    - Measures to encourage greater use of the alternatives:
        - 'Smarter Travel Choices' policies that boost use of the alternatives by enhancing personal choice through advice, information provision and encouragement
        - Financial incentives that make the alternatives a cheaper alternative to driving
2. **Reduce carbon emissions from the UK car fleet:**
    - In the long term electric cars may help to significantly cut emissions but all commentators agree that they will not form a significant part of the UK car fleet until well into the 2020s.
    - In the short to medium term the EU car standards are a good incentive for

manufacturers to cut carbon from new cars. They must be strengthened in the forthcoming 2012 review

- Car tax (Vehicle Excise Duty or VED) provides an incentive to purchase cleaner cars. Greater band differentiation would achieve even more

A package of priority measures to cut carbon from transport might include the following:

SHORT TERM (next 5 years)

- Support tougher EU CO_2 standards for cars in the 2012 review
- Ensure Smarter Travel Choices are introduced in all urban areas and piloted in rural areas and for long distance journeys
- 20mph speed limits in all residential areas to encourage walking and cycling
- Strategy to make the UK cycle and walking friendly with reallocation of road space, cycle and walking routes, cycle priority measures etc
- Quality mass transit schemes like tram / trolley bus in all major UK towns and cities
- Major changes to land use policy to favour sustainable modes over cars
- Funded strategy for supporting roll out of electric cars, charging points, grid changes, car purchase grants
- Introduce bigger incentives for people to choose cleaner cars, like higher differential between VED bands and increases in fuel tax
- Enforcement of speed limits
- Eco driving tuition
- More support for and promotion of car sharing
- More support for video conferencing as alternative to travel
- Introduction of congestion charging in urban areas

MEDIUM / LONG TERM (beyond next 5 years)

- Introduction of road user charging
- New rail lines could be considered – including freight only lines

[1] http://rightlines.org.uk/

[2] DfT 'High Speed Rail – Summary of Sustainability Appraisal http://webarchive.nationalarchives.gov.uk/20110131042819/http://www.dft.gov.uk/pgr/rail/pi/highspeedrail/hs2ltd/appraisalofsustainability/pdf/summary.pdf.

[3] 84% of passengers on the new line will be new trips or from conventional rail, March 2010 Command Paper (page 92) http://webarchive.nationalarchives.gov.uk/+/http://www.dft.gov.uk/pgr/rail/pi/highspeedrail/commandpaper/

[4] 58% of UK transport emissions are from cars. 90% of car emissions are from journeys of less than 100miles, 93% of car journeys (64% car emissions) are less than 25miles, 57% of car trips are less than 5 miles,· just 1.6% of UK transport emissions are from domestic flights, 1.9% of UK transport emissions are from rail. All stats from "Low Carbon Transport - A greener Future" DfT 2009 http://webarchive.nationalarchives.gov.uk/+/http://www.dft.gov.uk/pgr/sustainable/carbonreduction/

[5] For more information on Smarter Travel Choices See Friends of the Earth's briefing: http://www.foe.co.uk/resource/briefings/ltp_stc_briefing.pdf

[6] CCC ' Meeting Carbon Budgets' Oct.2009 page 227 http://hmccc.s3.amazonaws.com/docs/21667%20CCC%20Report%20Chapter%206%20to%20the%20end.pdf

[7] HS2 Exceptional Hardship Scheme http://www.hs2.org.uk/exceptional-hardship-scheme?pageid=1

[9] http://www.dft.gov.uk/consultations/open/2011-09/

[10] National Travel Survey (2009): http://www.dft.gov.uk/pgr/statistics/datatablespublications/nts/latest/nts2009-09.pdf