

South Yorkshire Climate Alliance Submission to TfN Draft Strategic Plan Consultation

Introduction to SYCA

South Yorkshire Climate Alliance brings together a wide range of local organisations and individuals who all want fair and effective action to tackle the climate and nature emergencies.

Please we note we have not followed the questionnaire format, as we wish to set out a focused, coherent narrative on how well the STP as a whole responds to climate change.

Summary

We welcome the new STP's greater emphasis on decarbonisation. The four new "plausible scenarios" are modelled, following effective consultation, using a thoroughly prepared evidence base. However, all the baseline scenarios exceed TfN's target decarbonisation trajectory. This is at a time of a climate emergency. The extent and urgency with which we all can and should respond to this has not yet been fully grasped by policy makers.

This submission therefore focuses on how both TfN's STP and the various wider economic and climate policies it is designed to support fail to set out a pathway which can mitigate or adapt to climate change rapidly enough. The STP will be a positive influence on wider policy and we urge TfN to fully utilise the strong evidence on climate change it has gathered to influence its partner bodies. We show how the STP (to the least extent), the NPIER, the CCC, the DfT and central Government generally, have all failed to produce strategies to match their "fair share" of effort to prevent climate change causing immense damage to our economy, environment and lives. We urge action to resolve that situation.

We finish, in the last notes of our "Conclusions" section, with some brief asks for each transport mode. These are largely asks for TfN to act more radically on evidence it has collected and we are confident other consultees will go into more detail on these.

Our Assessment of Draft STP's strength on climate change

We welcome that "Rapid decarbonisation of surface transport" is one of just three key strategic ambitions of the new draft STP. The commitment (page 29) to an earlier near-zero carbon date and ambition to "go further and faster than Government policy" on this is a strong and positive move.

We are pleased that TfN has proved effective in engaging with Local Authorities and environmental transport organisations. We believe that this has been an important factor in ensuring a higher degree of commitment to decarbonisation, expressed throughout the new draft STP, than was the case for the original of 2019.

The four "plausible scenarios" and their emissions trajectories (page 29) are modelled based on a detailed and thoroughly prepared evidence base. However, all the baseline scenarios exceed TfN's target decarbonisation trajectory. TfN rightly proposes a number of substantive measures to close the gap. On the other hand, probably all new road projects and potentially others would act to raise emissions as would the impacts of weaker than anticipated Government policy. Therefore, there is no guarantee that TfN interventions would enable the baseline trajectories for each scenario to be improved upon.

Beyond these points, it is important that TfN responds to wider developments on climate change evidence. We go through in the following sections why these demonstrate an overwhelming case for an STP which will reduce carbon emissions much more radically.

Science on global warming and implications for TfN

We note the very important observation (page 62) that the “IPCC’s Sixth Assessment Report indicates that the Earth’s average surface temperature is set [ie likely] to reach 1.5C-1.6C above pre-industrial levels by the early 2030s under all its modelling scenarios...” 1.5C is the limit which most of the world’s countries have agreed to pursue efforts to ensure is not exceeded, due to the dangerous consequences of going beyond it. Temperatures will continue to rise far beyond this, based on the current trend.

We consider that this projection by the IPCC has consequences for TfN. It shows that TfN’s four “plausible scenarios” do not, in fact, accurately depict anything resembling plausible futures. It is now clear that increasing numbers of homes and items of infrastructure will be damaged or destroyed by extreme weather, as time progresses. It will also have devastating effects on our natural world, an effect not represented in TfN scenarios either. Older homes and infrastructure will be most affected, as opposed to the new transport infrastructure whose design national policy and/or TfN can influence to improve its resilience. Especially beyond the 2030s, dealing with the consequences of extreme weather is increasingly likely to become the most prominent feature of our highly industrialised economy. (In fact, the most likely reason that this would not happen is the effects of pressures on our food and water supply or some other economic and social shock being greater, though many of these issues are related). It will also place extreme stress of a society, accustomed to assurances from politicians that climate change is being adequately addressed. The “plausible scenarios” and the economic and transport models on which they are based do not model any factor designed to reflect this situation. Modelling chaos is of course extremely difficult. However, existing models which ignore any likely impacts from environmental-related shocks do not reflect any likely future reality and therefore cannot in themselves be a sound basis for policy-making.

The NPIER and its influence on the STP

Another of TfN’s three strategic ambitions is “Improved economic performance”. You commissioned “Economic Scenarios for the Northern Powerhouse Independent Economic Review (NPIER)¹ to provide underpinning evidence on how to achieve this. (Note we use “NPIER” to refer to this 2021 report in these notes, as opposed to the original NPIER of 2016).

Whilst TfN’s statutory role is limited to surface transport, we strongly support its approach of striving to understand what kind of future economy the north is aiming for, which involves a degree of consideration of sectors outside of transport. The NPIER seeks to depict that economy. However, there are usually tensions between climate aims and economic aims in such exercises because unconstrained growth will lead to more travel and material consumption. It is important to investigate these.

The NPIER includes a baseline scenario and then models the effect of investing in technology, productivity, the labour force and “net zero” in order to grow the economy. It then combines all these to arrive at the favoured “New Transformational” scenario.

Little detail is given about the methodology used for the NPIER’s “Total Carbon Emissions” calculations. We understand that this report is focused more on economic modelling so the results

may be crude but they are depicted in a small graph on page A2 [pdf page 94]. By observation, emissions for the New Transformational scenario only decrease very gradually until the early 2030s.

From rough measurement off the graph:-

2020 emissions ~ 79 000 t CO₂

2035 emissions ~ 50 000 t CO₂

(These figures seem unfeasibly low so we suggest the vertical axis should be Mt, not “000s tonnes”. It is not stated whether it is CO₂ only or all-greenhouse gases that are shown). In any case, the emissions reduction is around **37%**.

This can easily be compared to the emissions reductions to meet the UK carbon budgets, because the middle years of the third and sixth carbon budget periods are 2020 and 2035 respectively.

The third carbon budget = 2544 Mt CO₂e

The sixth carbon budget = 965 Mt CO₂e

The emissions reduction between the two carbon budget periods should roughly equate to that between 2020 and 2035 and = **62%**.

The emissions reduction pathway of the NPIER therefore fails to come close to what is needed to be in line with UK carbon budgets. The implication is that the STP is aiming to help enable a transport system for an unrealistic representation of the future economy.

We suggest that the new scenarios in the NPIER need radical revision. The narrative feeding in to them is an improvement on the 2016 NPIER. Parameters such as climate change, public services, the natural world, social exclusion and equality are afforded much more value. We support that trend but believe the degree to which it has happened is simply insufficient.

We highlight two comments in the NPIER which touch on key problematic areas.

On page 4, referring to the New Transformational scenario, it states “*Simultaneous delivery encourages a more capital-intensive transition than would otherwise be the case.*” Many of the capital investments involved would be for hard infrastructure, that is usually energy-intensive to construct (even if it comprises part of the low carbon economy, such as wind turbines and nuclear power stations).

On page 82, para 8.18 states “*Consumption increases steadily from 2030 onwards, driven by increases in labour demand leading to higher employment and wages.*” In Figure 8.3 on the same page, consumption, Government spending and investment are all shown to increase rapidly. An effective way to reduce emissions would be to shift all of these factors away from physical goods towards services, in an economy in which these are assigned greater value.

TfN and consideration of national policy, including on sectors outside of transport

We believe that the notes in the above sections underline that it is vital for TfN to strengthen its recommendations on climate action. It must produce a strategy which is realistic, taking into account factors such as a move towards more stringent carbon budgets, which we suggest is essential, and climate impacts, both of which will affect our economy.

In order to do this, we urge TfN to further consider the state of national climate policy, including on sectors outside of transport and the right balance between supporting it and seeking to influence it. We offer the following brief evidence to support this ask:-

1) **DfT Transport Decarbonisation Plan** The transport academic, Prof Greg Marsden, has obtained data from the DfT through – initially contested - FOI requestsⁱⁱ. It includes projections for future road traffic growth and the take -up of electric vehicles used in DfT’s Transport Decarbonisation Plan. This told him what he had suspected ie “*we are currently appraising our major infrastructure investments on the basis of a set of assumptions about future traffic levels and carbon emissions which are not even close to being net zero compliant.*” He adds “*The commitments to bus, rail and active travel in the TDP will not, by any credible projection, put us back on track. Even if we look at reductions in car traffic of 20% by 2030 as suggested in Scotland, there is a big shortfall.*” Note this should give rise to some suspicion that Government policies in other sectors could also be too weak.

2) **CCC Progress Report** The Climate Change Committee’s (CCC) 2023 Progress Report was highly critical, stating “*policy development continues to be too slow*”ⁱⁱⁱ, in relation to most sectors.

3) **CCC Carbon Budgets** The CCC has been advising since 2018 that the most cost-effective path towards meeting the 2050 emissions target at the time, an 80% reduction from 1990 levels, would involve out-performing Government carbon budgets.^{iv} The legislated carbon budgets running up to 2032 have not been revised since then to reflect the current net zero target. This is largely because the CCC considers it is more important for the Government to get back on track to meeting existing budgets.

4) **Carbon Budget Delivery Plan and High Court Action** A number of environmental groups are currently taking legal action against the Government over its Carbon Budget Delivery Plan^v – which itself was only produced in response to an earlier High Court ruling against it. This challenges the risks involved in exceeding carbon budgets and the reliance of the Delivery Plan on high risk technologies, such as hydrogen, carbon capture and storage, and low-carbon aviation fuel.

5) **Aviation and Sea Ports** The STP emphasises the economic growth opportunities through improved international connectivity (eg page 48). Yet aviation especially and shipping involve substantial and some non-essential emissions. The CCC has described how the global warming potential of flights is estimated at two to three times the direct CO2 emissions, which carbon budgets allow for^{vi}. (The Sixth Carbon Budget includes them, the earlier ones allow headroom for them). Despite this, the CCC cannot estimate the scale of non-CO2 emissions with any precision and so unjustifiably ignores them altogether. It is Government policy to increase capacity at ports and is designating some as freeports. Much of the new economic activity at these is to develop the high risk technologies, mentioned in point 4) above.

Conclusions

Climate mitigation and adaptation: We believe that the notes in the above sections underline that it is vital for TfN to strengthen its recommendations on climate action. It must produce a strategy which is realistic, taking into account factors such as a move towards more stringent carbon budgets, which we suggest will become increasingly accepted as essential, and the impacts of unavoidable extreme weather events.

TfN should strengthen its own decarbonisation trajectory, by setting targets more in line with the “SCATTER tool”, adopted by many local and regional authorities, including South Yorkshire Mayoral Combined Authority and Sheffield City Council.^{vii}

Supporting national policies: We recognise TfN has a role in supporting Government policy. All other public and statutory bodies working on policy influencing the climate are in a similar position. Yet this serves to perpetuate the notion amongst those bodies themselves and in turn the public that climate change is being adequately addressed. With Government policy so inadequate that it has enormously dangerous consequences for the public, this is a serious matter. It is crucial that the relatively few organisations which clearly recognise the scale of the threat from climate change should assertively challenge the Government's position. It is overwhelmingly in the public interest to do so. We would suggest TfN is in an exceptionally strong position in this respect. It is advised by Decarbon8, which counts in its membership some independent scientists who are able to demonstrate very clearly how well current national policy performs on climate mitigation - and why. We would add that as more academics, political leaders and members of the public become aware of what is clearly a climate emergency, collective willingness to take radical and sometimes difficult action should increase. The sooner this happens, the better future outcomes will be for everyone.

Public Engagement: We believe TfN's engagement with existing interested stakeholders has been good. It should still strive to make better progress on more general public engagement. It is therefore important to convey accurate information about climate change to participants at events. We believe the full extent of the implications of the climate crisis has not been fully conveyed so far. In addition to the notes above, we can offer a very specific example of this, related to point 5) on aviation, in the previous section. The UK Climate Assembly was asked to consider the subject. The evidence presented to it ignored the non-CO2 warming impacts of flights altogether.^{viii}

Ambition for Specific Modes: We have explained why we believe the STP needs radical revision, to be stronger on addressing climate change. Most of the following points are implied by this and we just touch on them rather than going into detail about them here.

Buses: We believe very substantial investment should be made in local public transport, including bus, tram and light rail services. These modes enable people to make short journeys in a low carbon way. They are especially effective at reducing inequality and transport related social exclusion. Buses in particular require relatively little capital investment per passenger. Ambition should be increased well beyond that stated on page 117, ie "The share of trips made by public transport increases to 15% by 2050 (currently 7%)."

Active Travel : Active travel is good both for the environment and users' health. Ambition should be increased beyond that stated on page 117, ie "The share of trips made by active modes increases to 36% by 2050 (currently 27%)".

Rail : We strongly support the STP's prioritisation of rail investment. Multiple environmental benefits could be gained by a significant shift of travellers and goods haulage from road to rail. We would like to see increased emphasis on rail electrification, which allows for more energy efficient travel. Affording more priority to local schemes will aid efforts to improve equality and enable a more resilient economy.

Road Travel : We believe that car and lorry transport needs to be significantly reduced to mitigate climate change. This would also improve air quality and reduce other environmental impacts. TfN rightly seeks to provide alternatives and reduce the need to travel. It should also be strong on its proposal to "*ensure that investment in new road capacity is targeted only where the evidence shows it is essential.*" There is a risk of any such evidence perpetuating the existing tendency to prioritise shorter term priorities over the climate emergency. TfN should advocate for these measures to be supplemented by proportionate disincentives such as fuel duty increases and road mileage based taxes to limit car and lorry journeys. Specific measures could take into account local circumstances,

such as public transport provision. We strongly support the STP’s “decide and provide approach” (page 7).

Aviation and Shipping: The STP’s strategic priority (page 87) on “*Developing port to port zero-carbon multimodal corridors, with a focus on maximising the economic potential of freeport status to ports and their hinterlands*” should be moderated, in view of the huge risk of massive investments in carbon-intensive infrastructure projects failing to result in successful low-carbon technologies being developed. Similarly, as aviation is a high carbon mode, transport policy should seek to reduce demand and, in turn, the need for expanded connectivity to airports.

Chris Broome,
on behalf of South Yorkshire Climate Alliance
16/8/23

ⁱ<https://transportforthenorth.com/reports/economic-scenarios-for-the-northern-powerhouse-independent-economic-review/>

ⁱⁱ<https://www.transportxtra.com/publications/local-transport-today/news/73023/the-route-to-net-zero-dft-assumptions-look-well-off-course/>

ⁱⁱⁱ<https://www.theccc.org.uk/publication/2023-progress-report-to-parliament/> (quote taken from this webpage).

^{iv}<https://www.theccc.org.uk/publication/reducing-uk-emissions-2018-progress-report-to-parliament/> page 18. The body of the report details failings in numerous policy areas.

^v<https://www.edie.net/feeble-and-inadequate-government-taken-to-court-again-over-net-zero-plans/>

^{vi}<https://www.theccc.org.uk/wp-content/uploads/2020/12/The-Sixth-Carbon-Budget-The-UKs-path-to-Net-Zero.pdf> pages 372-6.

^{vii}<https://carbonbudget.manchester.ac.uk/>

^{viii}<https://www.climateassembly.uk/report/> (Click on “PDF : Full Summary” link” Go to page 14, where the information at the top of the page ignores non-CO2 impacts.