13th April 2021

Ms Cathie White
Ms Alison Ross
Clerks, Committee for Infrastructure
Committee.Infrastructure@niassembly.gov.uk

Dear Cathie and Alison,

Thank you for your invitation for Translink to submit feedback in relation to the Committee for Infrastructure's enquiry into the decarbonisation of road transport in Northern Ireland.

Translink is committed to taking positive action on climate change and taking a leadership position on the decarbonisation of transport in Northern Ireland. We strongly believe that bus and rail transport, along with other sustainable modes, has a definitive role in a zero-emission future and it is also important that modal shift is considered in any transport decarbonisation strategy.

Translink believes that the immediate challenge is to reverse the dependency on the private car. Whilst alternative technologies will assist with decarbonising and reducing harmful emissions from transport, a greater focus on transport efficiency and modal shift to sustainable public transport is required. The use of public transport instead of the private car immediately reduces the carbon footprint of a journey by at least 50% and more if low or zero emission buses/trains are utilised.

Regions and cities with efficient, integrated, and accessible public transport systems reduce private car ownership and therefore can significantly reduce traffic congestion and greenhouse gas emissions. There must be greater focus on behavioural change programmes from Government, including a transformation in investment for bus and rail, better bus priority measures across all our major cities, continued roll out of Park & Ride and integration with cycle infrastructure. To achieve the UK Net Zero targets, we have applied a wide-ranging Climate Positive Strategy across the entirety of Translink's operations, including our bus and rail fleets, buildings, estate, and all associated aspects. Having an ambitious Climate Positive Strategy will help us to achieve our goals of decarbonisation and Net Zero, as well as improve our air quality, keep the population active via an associated drive to sustainable transport and help rebuild our economy to be fit for a low emissions future as part of a 'green recovery' from the pandemic.

As the Committee will be aware, Translink is already leading the way in relation to Zero Emission Vehicles (ZEV), with the introduction of hydrogen-powered vehicles to the Metro fleet in Belfast during late 2020, the first double-deck hydrogen buses anywhere in Ireland. These will be complemented within twelve months by the introduction of another 100 zero emission battery and hydrogen-powered vehicles, one of the largest zero-emission bus orders in the UK.

On our railway network, we have purchased 21 additional carriages as part of the 'New Trains 3' programme (the initial carriages have arrived and will be joined by the remainder later in 2021; they will all have entered service by autumn 2022). These are 20% more fuel efficient than previous trains and will also play a significant role in providing low-carbon transport.

These trains will be the last 'diesel-only' trains Translink will purchase. The next phase of new rolling stock which Translink is developing will be new bi- or tri-mode units for NI Railways services under 'New Trains 4' – these trains will ultimately be capable of zero emission running using battery, electric or hydrogen power or a combination of these technologies. In parallel, we are developing a new Enterprise fleet for an hourly service between Belfast and Dublin, which will be capable of zero emission running, with a longer-term objective to electrify all or parts of the network.

I will address the questions you have posed in order:

The main benefits to the uptake of ZEV are environmental, in that they eradicate both greenhouse gas emissions (to combat climate change) and fossil fuel emissions which cause air pollution. Northern Ireland is also well placed to develop and deliver the necessary renewable power generation capability and to capitalise on the potential for a strong hydrogen economy. Translink is, with Northern Ireland Executive support, making interventions with our plans to move towards Net Zero, including via investment in new and emerging bus and rail technology, including hydrogen, battery and electric and will drive an enhanced environmental, social and economic dividend for our entire community.

Costs and constraints are the main barriers to the uptake of ZEV and the decarbonisation of road transport.

In terms of cost, ZE buses are more expensive than the diesel vehicles they replace; for example, an electric bus is 1.8 times the diesel capital cost whilst a Hydrogen Fuel Cell bus is approximately 2.4 times the price of a diesel equivalent. Also, a significant initial capital outlay is required to install the vehicle charging or hydrogen fuelling stations to support the new ZE fleets. Add to this the high costs of hydrogen as a fuel (largely due to the current low volume and low usage in the market) and the cost of upskilling staff to operate and maintain the new ZE technologies makes business cases difficult to justify on cost alone. While Translink acknowledges the support of both the Executive and the Office for Zero-Emission Vehicles (OZEV), there will be an ongoing need to invest in and fund zero emission technologies and their operation, to decarbonise public transport.

In terms of constraints, there is a very limited market for the supply of green hydrogen in Northern Ireland. Whilst there are some pilot projects in development, there appear to be limited suppliers capable of supplying green hydrogen at the cost and volume required to support large numbers of public transport vehicles or indeed other forms of road transport. Translink is currently leading the way with the implementation of Hydrogen buses which will ultimately prime the market. However, more development and support is required to upscale both market supply and demand in order to make hydrogen powered transport financially competitive. Other constraints include the limited amount of bus priority in Northern Ireland to maximise the benefits of ZE Bus Transport in terms of service reliability and journey times.

An increase in Net Zero emissions transport will have significant environmental impacts, helping to improve air quality and improve public health. Tied in with an associated push towards other forms of sustainable transport, including walking and cycling, the public health benefits will be substantial, with an effective public transport system encouraging more active, sustainable transport choices. Economic and social benefits will also be visible, thanks to a reduction in congestion on our streets, making towns and cities more attractive to live and work in.

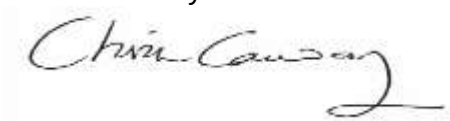
As previously outlined, Translink will have moved to a zero-emission bus and rail fleet by 2040, with fleets in Belfast and Derry~Londonderry achieving this target by 2030. An important step on the road to this journey will be reached next year, when all Metro, Foyle Metro and Goldline vehicles will be modified or replaced, to operate to the latest Euro 6 emissions standards or better, to provide clean air public transport in both cities and across Northern Ireland.

Translink estimates that the full cost of decarbonising our bus and rail fleets is likely to be in the region of £1bn between now and 2040.

Translink is committed to a 'green' future and we will work closely with all stakeholders to bring our Net Zero vision to reality in the years ahead, taking a leadership position on the decarbonisation of transport in Northern Ireland.

I trust you will find this short response worthwhile. We would be glad to brief the Committee in person on these matters and to answer fully any questions members may have. Please do not hesitate to contact me should you wish to make arrangements or if you require additional clarity on matters covered within this letter.

Yours sincerely



Chris Conway
Group Chief Executive, Translink