

Written evidence submitted by Wrightbus, Ryze Hydrogen and HyGen Energy, regarding the Investment in Northern Ireland inquiry (INI0012)

Whilst Wrightbus manufacture both hydrogen and electric zero-emission buses, Ryze (focused on hydrogen distribution) and HyGen (focused on hydrogen production) are both hydrogen-only businesses. As a result, our evidence focuses on the steps required to stimulate maximum levels of investment in growing Northern Ireland's hydrogen economy.

Through this combination of companies, all of which are owned by Jo Bamford, we are:

- A significant, current employer in Northern Ireland, with a workforce approaching 1000 (when Jo Bamford bought Wrightbus out of administration in October 2019 it had just 56 staff).
- An ambitious organisation looking to invest in hydrogen projects in Northern Ireland, and therefore intending to create many more high-quality jobs across all businesses.

Our key points to the Committee are:

- Northern Ireland should be at the forefront of the UK's efforts to develop a world-leading hydrogen economy. Key to achieving this is the delivery of three UK Government policies, which are outlined below in this evidence.
- World-first, Northern Ireland-made hydrogen double decker buses are already on the streets of Belfast, Dublin, Aberdeen, Birmingham and London – and advanced conversations are underway with many local authorities across the UK who see hydrogen mobility as playing a key role in their decarbonisation plans.
- Northern Ireland has immense natural resources that can be utilised to produce renewable, 'green' hydrogen. However, currently there is a lack of hydrogen gas in Northern Ireland.
- As a result, HyGen is looking to invest in hydrogen production around the Wrightbus factory – which would create additional local job and apprenticeship opportunities. This will produce hydrogen to serve additional hydrogen buses from organisations such as Translink, and support the introduction of other hydrogen vehicles across Northern Ireland – therefore assisting other organisations to invest in zero emissions technology. A more supportive regulatory environment (as outlined below) could speed up the deployment of this investment.
- Northern Ireland already has a competitive advantage in fuel cell R&D and manufacturing, with Wrightbus and Queen's University Belfast leading the development of next generation fuel cell electric buses, building on the success of the current generation of buses already in service.
- A collaborative industrial council/taskforce should be established combining industry with the NI Executive, UK Government and local authorities in NI to develop and coordinate applications to the UK Infrastructure Bank and HM Treasury (HMT) funds such as Shared Prosperity Fund and city deals.
- The NI Executive should work with the Department for International Trade (DIT) and Wrightbus to proactively drive exports of NI-made green buses.
- Northern Ireland and the UK Government must also collaborate with the Irish Government to create an 'all-island' hydrogen economy, and build on commitments recently made at the

Shared Island summit.

A representative from our combination of companies would be delighted to provide oral evidence to the Committee as part of this inquiry. We would also like to invite the committee to visit our manufacturing site in Ballymena, where members could go for a journey on our zero emission buses and be shown where we are planning to build hydrogen production facilities.

Why should Northern Ireland focus on stimulating private investment in hydrogen?

The global hydrogen economy is forecast to be worth £2.5tr by 2050 and support 30m jobs. Nations across the world are investing heavily in their domestic hydrogen markets, and the UK Government published its own Hydrogen Strategy in August 2021 (and the Scottish Government recently published a Draft Hydrogen Action Plan).

Moreover, in December 2021, the Irish Government committed to “develop with the Executive and the UK Government a cross-border pilot project on green hydrogen for the road network”, with the hydrogen intended for use in hydrogen buses and trucks. We welcome the response from Northern Ireland Infrastructure Minister, Nichola Mallon, who said “I also welcome this proposal to use Shared Island funding to develop an all island “green hydrogen” plan for the road network focusing on buses and heavy goods vehicles. It is very clear that the pathway to transport decarbonisation will require the introduction of a range of alternative cleaner fuels such as Hydrogen Fuel Cell technology for heavier vehicles”.

A global race on hydrogen has started. This means that the nations who act now - both in terms of funding and regulatory support - can steal a march over international competitors and create a framework for long term growth and investment.

Delivery of Government promises can unlock significant levels of private investment in sustainable projects

The Government has made a series of commitments that would support an increase in investment and job creation in Northern Ireland. These promises must be delivered at pace.

- **Deliver on the pledge to invest in 4,000, UK-made, zero emission buses:** The Prime Minister, in Feb 2020, promised to invest in 4,000 UK-made zero emission buses in England within this Parliament. The delivery of this pledge is currently behind schedule, meaning that funding for investment in buses that was announced as the Spending Review must be used with pace. Not only will these UK-made buses improve air quality, but they will directly lead to new jobs and investment opportunities at the UK’s three bus manufacturers.
- **Focus on green hydrogen to deliver the 1GW by 2025 hydrogen production target, and ensure this investment is truly UK-wide:** The UK Hydrogen Strategy includes a target for 1GW of hydrogen production by 2025. Given that blue hydrogen sites will not come online until 2025 at the earliest, the UK Government must focus available funds, such as the Net Zero Hydrogen Fund, in green hydrogen production. With strategic UK-wide use of this fund, Northern Ireland will be able to leverage much greater levels of private investment and create opportunities to manufacture hydrogen for vehicles across the island of Ireland, such as the cross-border hydrogen bus and trucks projects committed to by Taoiseach Michael Martin in December 2021. In addition, the UK Government is currently investing in hydrogen production projects in England, Wales and Scotland, but nothing in Northern Ireland.
- **Deliver planned reforms of the Renewable Transport Fuel Obligation and consider an NI exemption:** The Renewable Transport Fuel Obligation (RTFO) is the only current/available

regulatory lever that the UK Government can pull to stimulate investment in green hydrogen production. The Department for Transport has committed to publish in early 2022 plans to reform the RTFO, and these must be enacted at speed. In addition, we understand that the Executive has made representations to the UK Government to introduce additional flexibility of the RTFO in Northern Ireland. This is due to the current extremely low levels of hydrogen production in Northern Ireland, and the challenges investors face in locating a viable project. We would support specific, additional reform of the RTFO for Northern Ireland.

Building skills and collaborating with the NI academic community

Existing education and training routes have a key role to play in meeting the short-term skills needs of the clean energy sectors. We recently announced 19 new apprenticeships and are restarting our apprentice programme – we want to grow further. We are recruiting heavily from Queen’s University and are looking to sponsor graduates through software and electrical engineering courses. We also recently re-joined the Ballymena Chamber of Commerce as we step up our efforts to link the company back to the community – our ultimate goal is to bring school children through education and into local green jobs with long-term prospects. We are eager to take on highly skilled a workforce and are doing all that we can to support the development of this resource locally.

In addition to our academic partnership with Queen’s, we are working closely with Middle and East Antrim Borough Council to bring skills training in the region to life and ensure it is targeted to the needs of industry. We would like to see this work progressed further, as meeting the wider skills needs of the clean energy sector will require significant investment that goes beyond existing education and training routes. Further investment from the UK Government and Northern Ireland is required, both in the short and long-term, to ensure a skilled workforce presence in Northern Ireland that will be required to deliver the transition to net zero, and reap the economic benefits associated with this shift. We are committed to playing our part in this – our hydrogen centre for excellence will support upskilling and knowledge sharing, bringing long term benefits for the Northern Ireland economy. By 2031 we will have upskilled over 6,000 individuals across a range of professions, including fitters, mechanics, electricians, and engineers.

Wider points on hydrogen

In addition to the three areas outlined above where urgent delivery of Government commitments is vital, there are several other policy steps that the UK Government and Northern Ireland Executive could make together to accelerate and increase investment in Northern Ireland.

- **Public transport:** Investment in the public transport system is a key tool for getting cars off the road, and therefore vital for improving air quality and promoting active travel. Buses are central to connecting local communities so can provide a valuable alternative to private vehicles. The UK Government’s Bus Back Better Strategy set out ambitions to improve the quality of buses to encourage greater use of the network. Similarly, greater integration of public transport systems, such as trains, trams and buses, would make it easier for people to take public transport instead of using cars. We support the UK Government’s ambition that the economic recovery from Covid-19 should not be car led. Wrightbus and Ryze Hydrogen are committed to working with both the UK and Northern Ireland administrations to implement their long-term vision to decarbonise public transport.
- **Our partnership with Translink:** Wrightbus has an established contractual relationship with Translink, a public corporation which provides transport services across Northern Ireland and Dublin. To date Translink has ordered substantial numbers of zero emission buses from Wrightbus, with several already in operation. As a result, our Northern Irish-built, zero emission buses form an important part of the public transport network in communities across the island

of Ireland. Wrightbus is in constant conversation with Translink to understand their needs and those of the communities they serve. As a result, our investment programme in Northern Ireland is heavily shaped by the direction of Translink's business. For example:

- When Translink decided they wanted to introduce fleets of electric buses, Wrightbus developed a suitable vehicle.
- Due to the lack of hydrogen gas in Northern Ireland, HyGen is seeking to invest in hydrogen production around the Wrightbus factory. This will produce hydrogen to serve additional hydrogen buses, and support the introduction of other hydrogen vehicles across Northern Ireland – therefore assisting other organisations to invest in zero emissions technology. A more supportive regulatory environment (as outlined in this evidence) could speed up the deployment of this investment.
- **Commit to hydrogen vehicles across the public sector:** Given that many public sector use cases are heavy vehicles, such as refuse trucks and ambulances, early investment by the public sector could have an outsized impact on scaling the hydrogen economy in Northern Ireland. Demonstrating demand early on for hydrogen would drive investment in hydrogen production in Northern Ireland, cementing its position as a leader in the global hydrogen economy and ensure that this investment does not go elsewhere.
- **Plan depot conversion early:** Investment in centralised refueling infrastructure at depots will also be critical to integrating hydrogen vehicles into the bus network and accelerating the deployment of other hydrogen public sector vehicles. Deploying hydrogen buses will improve private sector delivery capabilities, reducing the risk associated with financing other use cases for hydrogen by applying these learnings.

With the contribution of innovative local businesses, such as Wrightbus, and the right policy and regulatory framework, Northern Ireland is well placed to become a leader on hydrogen in the UK and globally, accelerating its transition to net zero. Early investment in hydrogen infrastructure is critical – the faster infrastructure is in place, the easier it will be to scale Northern Ireland's hydrogen economy and expand its range of applications. Furthermore, early investment in infrastructure will help to support the development of supply chain secondary industries (such as refuelling and transport) and in so doing help to unlock the associated economic benefits. To ensure that Northern Ireland doesn't fall behind other countries, we urge the Northern Ireland Affairs Committee to recommend the policy measures outlined in this evidence, which altogether represent the ambition and agility required to ramp up the Northern Ireland hydrogen economy.

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