



A Mass Rapid Transit VLR Tram for Milton Keynes

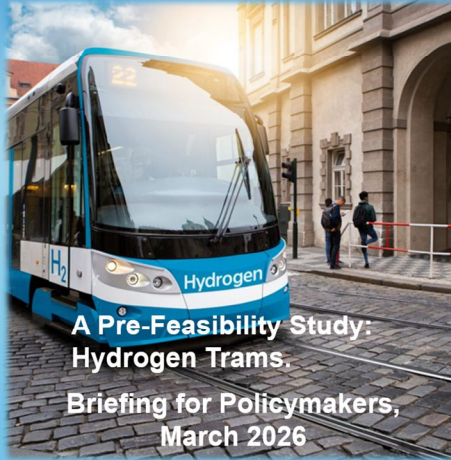
Line 1 (Starter):



Wolverton ↔ Central Milton Keynes ↔ Bletchley / Newton Leys .



*Better value to the Public Purse



A Pre-Feasibility Study:
Hydrogen Trams.
Briefing for Policymakers,
March 2026

NO Major
Pollution
First/Last Mile



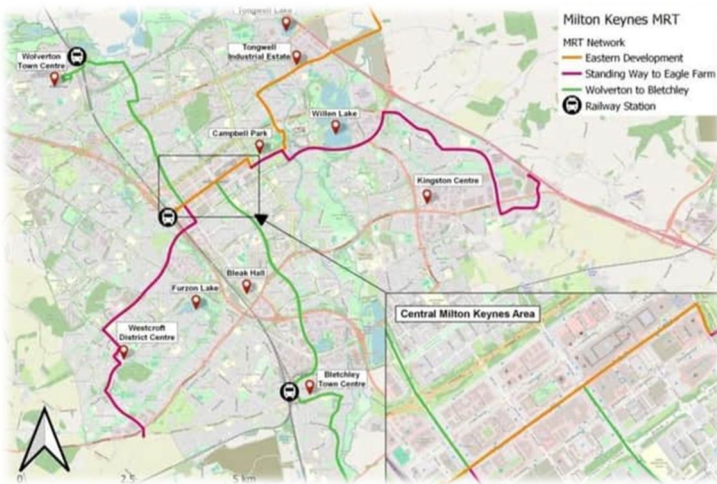
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An affordable, multi-generational alternative to the Air Pollution (NEE) that will be caused by any bus-based Mass Rapid upgrade.

Podcast @ HTaaS

<https://www.railindustryconnect.co.uk/rail-industry-connected-hydrogen-trams-as-a-service-with-jim-harkins-light-rail-uk/>



Green Line, not to scale, guidance only

Benefits of Hydrogen Very Light Rail for Milton Keynes,

Over thirty years life +of the Tram

What we're proposing

A battery-dominant, catenary-free or overhead line VLR on the proposed Busway (BRT) corridor using TfGM MRV-3 units (nominal 100 pax per car) operating in multiple-unit formation (e.g., 2×MRV-3 = ~200 pax per train, 1 driver), integrated with a high-quality greenway

This delivers a turn-up-and-go service between Wolverton Town Centre, Central Milton Keynes and Bletchley Town Centre, with extendable stops at either end in Phase 1a.

TfGM's MRV-3 is a production platform already in public service (e.g., Msheireb, Doha) and offered in battery-only or battery-hydrogen variants. MRV-3 is explicitly listed by the OEM at 100 passengers and MRV-4 at 200–300 for future scaling.

No Air Pollution at Point of Use!

Heidi Alexander, Transport Secretary, backs Very Light Rail (VLR)
<https://www.bbc.co.uk/news/articles/cm28lzmj79no>



Self-powered new build tradition summer tram cars



City Cars (3), autonomously coupled, 300 passengers

Why Tram-Led MRT for Milton Keynes

French experience shows tramways are most effective when planned with development, not added later. Tram permanence supports housing delivery, regeneration, and investor confidence. Medium-sized cities (200k–500k population) are the strongest performers internationally. Reliability, segregation, and street priority matter more than headline speed.

VLR allows these benefits to be delivered affordably and incrementally.





Light Rail (UK) Group

Tritonex

An absolute game changer for all things hydrogen, with 100% Angel share captured and corrosion protected

<https://triton-hydrogen.com/>



Why Green Hydrogen Trams? ©

Milton Keynes, A showcase City Region for the latest tried and tested VLR Technology?

Why it beats alternatives

Faster, cheaper build: shallow embedded track (~30 cm) minimises utility diversions and visual clutter (no wires). [sthelenslabour.org]

Right-sized capacity & geometry: tight-curve capability suits Sutton Oak structures while multiple-unit sets scale for events and peaks.

“Green Book”-compliant benefits: we can monetise carbon, air quality, noise, landscape, water-environment and wider natural-capital uplift via TAG A3 workbooks and ENCA, making “soft benefits” fully count in VfM. [assets.pub...ice.gov.uk], [gov.uk], [assets.pub...ice.gov.uk] Policy fit & funding window aligns with Milton Keynes Council’s MRT aspirations for tram like buses. Our feasibility study shows that we can have a tram with lasting generational benefits rather than the short 15 year short term benefits of a bus for similar kind of money over a thirty year period+ a genuine green corridor, no pollution at use + and the Greater Milton Keynes Region’s circa £1.6 bn TCR investment programme (new stations, rapid transit, smart ticketing).

The national delivery of an integrated transport system will often involve initiatives that span local authority and county boundaries and mechanisms for coordination at regional levels are needed to help promote and deliver this project.

A proposal for a Very Light Rail line. Based on the Park & Ride locations and North – South starter line shown on the Milton Keynes MRT map, the table overleaf outlines the benefits of Hydrogen Very Light Rail (H-VLR) for each corridor segment.

This reflects modal shift, air quality, regeneration, and strategic integration with MKCC MRT aspirations and planning goals +.

The largest share of transport emissions comes from cars, accounting for 38% a 20% reduction by 2030.

.Transport Scotland Jan 2022

As Trams have a high modal switch of circa 25% - 32%, this demonstrator line can achieve that target along this corridor

Statistics in Tram integrated Nottingham show that LEZs are not required

Light Rail (UK)

E-mail Jimh@jimmyharkins.com Auchenshuggle Junction, Moore, Warrington, Cheshire, United Kingdom

01925 740675 07721378223



Legal utilities are left in place

***Installation less than £10M per Km**

Scheme Cost and Benefit Cost Ratio



Commercial specialists in low-cost, VLR, affordable & sustainable tramways

Some photographs and material courtesy of MKCC and Arup

Trams have a proven record of getting people out of their cars while producing zero emissions and particulates at the point of use. Very light rail (VLR) offers significant potential for enabling these benefits to be realised on a significantly larger scale.

VLR trams are built to internationally recognised standards and serve as an affordable introductory line. costing less than £10M per track kilometre, they represent a notable public generational transport legacy.

Funding may be available as part of the Hydrogen Tram as a Service (HTaaS) Project

The new track is laid just 30cm within the road’s surface, minimising the need to relocate pipes and cables, which is time-consuming and expensive.

This is achieved by taking advantage of cutting-edge materials, while still making use of standard rail parts
Hardness can be enhanced using Tritonite



Hydrogen and electric buses can only be regarded as a temporary solution in the short term, with no lasting transport legacy; they remain a source of significant particulate pollution (*NEE) caused by the friction between tyres and road surfaces, whereas steel wheels on steel rails produce zero emissions of this type.

***All UK Governments are aware of this which we believe to be (Greenwash) NEE pollution**

***39,000 + people died from Particulates**

Very Light Rail Consultants, Transport Engineers, Private Enterprise, Politicians, Academics, Environmentalists and others. www.lihtrailuk.co.uk