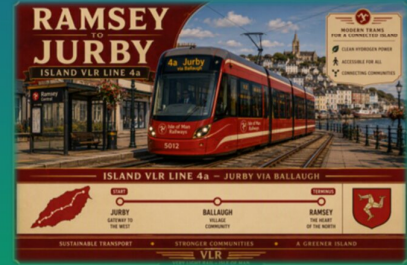




A Very Light Rail (VLR Tram) Circle Line Jurby – Andreas - Ramsey Line 4 Phase 1 Jurby – Ballaugh – Ramsey Line 4a Phase 2



**NO Major Pollution
First/Last Mile**



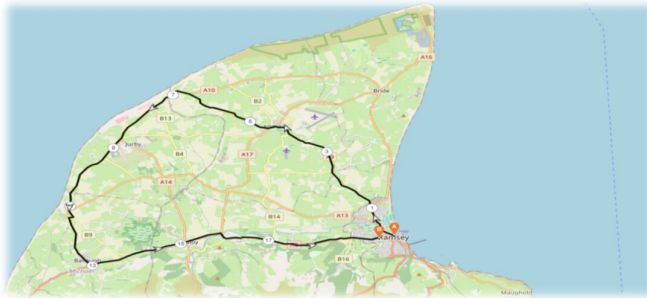
*** Better value to the Public Purse**
An affordable, multi-generational alternative to the Air Pollution (NEE) that will be caused by any bus-based Mass Rapid upgrade.



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

Line 4 Northern Loop & P+R
(Sept 2025)

All Island Benefits



Not To Scale 1.74 Mile

- ✓ Improves Northern connectivity across the Isle of Man
- ✓ Enables through services to Douglas and future corridor expansion
- ✓ Increases ridership by offering a clean, convenient alternative to driving
- ✓ Reduces traffic congestion and CO₂ emissions
- ✓ Boosts tourism revenue and economic growth in Ramsey, Castletown, and Douglas
- ✓ Raises property values along the corridor, especially near stations and sidings
- ✓ Enhances access for non-drivers, the elderly, and disabled residents
- ✓ Demonstrates commitment to sustainable transport and hydrogen innovation

No Air Pollution at Point of Use!



Self-powered new build tradition summer tram cars



City Cars (3) autonomously coupled, 300 passengers



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/>

**TRITON
Hydrogen**
Solving Impossible Problems

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Why Green Hydrogen Trams?

Isle of Man: Ramsey Jurby Circular Line 4 Phase 1 & 2.



A Coventry VLR running x 56 Pax



Doha VLR in Service x 100 Pax +100 Pax +100 Pax Total 300 Pax

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



Aruba: New build, Old design Hydrogen Tram.
Can be autonomous coupled x 3 Cars

Can be autonomous, can be autonomously coupled x 3 cars

◆ Phase 1: Ramsey Reversing Spur

◆ Phase 2: Ronaldsway Airport Loop

Ramsey Spur

✓	Installation Cost: £4M-£8M
✓	5-Year Value Uplift: £8M-£16M
✓	Return Ratio: 2:1
✓	Benefits:
✓	Urban regeneration and modal shift
✓	Property uplift and civic activation
✓	Heritage-sensitive integration
✓	Political and planning leverage
✓	Combined Strategic Value
✓	Total Investment: £12M-£23M
✓	Combined Uplift (5 Years): £21M-£42M
✓	Corridor Leverage:

✓	Installation Cost: £8M-£15M
✓	5-Year Value Uplift: £13M-£26M
✓	Return Ratio: Circa 2:1
✓	Benefits:
✓	Gateway visibility and tourism uplift
✓	Industrial estate access and land value growth
✓	Environmental and health gains
✓	Strategic demonstrator for innovation funding
✓	Positions Isle of Man as a hydrogen mobility pioneer

✓	Builds public and political momentum for the full Ramsey-Douglas Airport line
✓	Attracts academic, commercial, and Treasury interest
✓	Installation
✓	Cost: £8M-£15M using modular, shallow VLR engineering
✓	5-Year Value Uplift: £13M-£26M from airport access, tourism, property uplift, and environmental gains

✓ Cost-Benefit Ratio: Circa 2:1



Not To Scale 1.74 Mile

Less than £10M per track Kilometre and are a significant Public Transport Legacy.

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.

Legal utilities are left in place



*Precast Advanced Track
Installation is less than £10M per Km

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.

Compatible with current vehicles, including VLR, Light Rail & TramTrain

This is achieved by taking advantage of cutting-edge materials, while still making use of standard rail parts



*Ingerop and its UK subsidiary Rendel.
30 cm into the road surface Installation
less than £10M per Km

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

Possible link route
Harbour Ferry Terminal



to



Douglas Railway Station
Reality of road space reallocation

Hydrogen/electric buses can only be seen as a welcome interim solution in the short term, with no transport legacy; they remain a source of significant particulate pollution (*NEE) arising from the friction between tyres and road surfaces

Non-exhaust emissions make up over half of particulate pollution from road transport while steel wheels running on steel rails create zero emissions of this type.

***All UK Governments are aware of this (Greenwash) NEE pollution**



*30,000 people died from Particulates and Heavy metals
Commercial specialists in low-cost, VLR, affordable & sustainable tramways
www.lightrailuk.co.uk

Auchenshuggle Junction, Moore, Warrington,
Cheshire, United Kingdom
01925 740675 07721378223

Light Rail Consultants, Transport Engineers,
Private Enterprise, Politicians, Academics,
Environmentalists and others.

"If you can't get to places, you can't do things, and the things you can't do are important!"

Sponsored by Clean & Green Transport and Funded by Triton Hydrogen Ltd

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