

HERITAGE RAILWAYS INDEPENDENT REVIEW




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SYSTRA

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1. EXECUTIVE SUMMARY

1.1.1 SYSTRA Ltd have been commissioned by the Isle of Man Government's Department of Infrastructure (DoI) to conduct a review of the Island's heritage railway operation. The review has been completed to address a defined Terms of Reference developed by the DoI.

1.1.2 Detailed responses to the Terms of Reference are found at the end of this report, and within this Executive Summary we provide a high level overview of our findings.

1.2 Cost Management & Subvention

1.2.1 Our review has found that the current management of the railway is succeeding in controlling costs. The real (inflation-adjusted) level of subvention has remained broadly constant since 2018 (with the exception of the years heavily impacted by COVID-19), against a backdrop of demand which remained suppressed by COVID-19 until the 2023 season. This indicates that the railway has been successful in maintaining and increasing revenue, and minimising revenue expenditure.

1.2.2 There appear to be few opportunities to reduce costs further without impacting on service delivery to the extent that the wider economic benefits of the railway and its role in dispersing tourists and tourism revenue is undermined. The level of permanent staff in position is appropriate to the scale of the asset and the level of service operated.

1.3 Fares & Ticketing

1.3.1 A review of fares and ticketing has found that the current full fare tickets are priced at a comparable level to other heritage railways. This is encouraging, but is the result of a sharp rise in fares in 2023 of up to 26% in nominal terms.

1.3.2 There are however a number of concerns about pricing of other tickets. The average yield per return trip is typically less than half that of a full fare ticket. Whilst some reduction would be expected as a result of discounted fares for specific groups (such as children) and shorter trips, we believe that much of this yield erosion is attributable to the pricing of Go Explore tickets, which provide a discount for rail fares especially for those visitors wishing to visit all four railways over a number of days. The price of these tickets was not raised in line with full fare return tickets in 2023, which has further increased the disparity between point to point fares and Go Explore tickets. Discounts on group point-to-point tickets sold to cruise and coach groups also erode the actual realised yield on a trip.

1.3.3 The Go Explore tickets have wider value to the Island as part of making public transport usage appealing to visitors and as a means of dispersing visitors and visitor spend outside of Douglas. However, there is a need to increase the price of these tickets further to better align them with point to point fares, or to explicitly acknowledge that the wider policy aim of comparatively low cost public transport for tourists is intended to be subsidised through restricted public transport pricing. There is also a need to ensure that the split of revenue between Bus Vannin and the railways for multi modal tickets continues to be updated regularly, based not only on the changing relative ticket prices,

but also based on the number of passengers using each mode and distance travelled on each mode.

1.4 Wider Economic Impacts

1.4.1 This study has updated previous analysis on the wider economic impacts of the railways. The railways are a central part of the tourist offer on the Island, second only in importance to the TT races. As an attractor of visitors to the Island they support around 240 jobs directly, in addition to the those employed on the railway. In combination, the spending by visitors in the economy and spending by the railway itself generates £4.64 for the Island for every £1.00 of subvention, falling to £2.88 when capital spending is included. Although the railways require funding from government, they clearly generate large return for the Island and currently form a central part of the marketing and promotion of the Island.

1.5 The Use of Volunteers

1.5.1 The Isle of Man Railways are unusual compared to other heritage railways in that they rely entirely on a paid staff to deliver the service, rather than using volunteers. SYSTRA have reviewed other heritage railways in the UK and estimated the level of participation in volunteering amongst the catchment population of those railways. The conclusion of this analysis is that the likely level of voluntary participation on the Island would fall far short of that required to operate the service. We estimate that the Island's population could generate between 25 and 70 volunteers to support railways, not all of whom could engage in safety critical roles. However, a number of these are, in practice, already committed to working on the Groudle Glen and Laxey Mine Railway, which is separate to the heritage railways considered within this report.

1.5.2 As volunteers are typically able to work fewer hours than paid staff, the number available would not be able to provide cover for more than a small proportion of the railways existing roles. We therefore do not recommend the use of volunteers for engineering or operational roles. This finding is driven by the anomalous position of the Island, with a comparatively large rail network supported by a small population. The Isle of Man has around three times the length of railway per head of population as Great Britain does. If this comparator was limited to heritage railways only, the Island has around 50 times the length of railway per head of population as Great Britain. UK heritage railways already struggle to source volunteers from a much larger population; it is therefore extremely unlikely the Island's population would be able to support the required level of volunteering.

1.6 Capital Investment

1.6.1 Over the last seven years the railway has received over £35m of capital investment from government, averaging around £5m per annum until the current financial year where it has fallen to £2.5m. This has been an elevated level of spending reflecting the need for an infrastructure renewal programme – should funding be available, this programme will draw to a conclusion in the next few years, and in the medium term there should be a decline in the need for this type of spending.

1.6.2 The railway also now possesses a better understanding of asset condition than it has done historically, meaning that it should be able to provide good estimates of future spending requirements. It should be expected that there will be no requirement for large scale track renewals (beyond the completion of the current programme) for between 15 and 20 years on the Isle of Man Railway, and 30 to 40 years on the Manx Electric Railway and Snaefell Mountain Railway. The emphasis of capital spending needs to evolve, by moving away from renewals towards resilience (for example increasing the size of the operational steam railway loco and rolling stock fleet) and also enhancements. This aligns with the proposed approach to organisational structures discussed below.

1.7 The Organisational Structure of the Railway

1.7.1 The railways are currently publicly controlled and managed by the DoI. This has been the position for over 10 years, and the DoI has overseen a capital programme that was required to renew many of the railways assets, especially track and overhead lines. However, as what is essentially an asset management organisation, the DoI is less well-placed to manage and develop a visitor attraction.

1.7.2 Having reviewed alternative structures and giving consideration to the scale of the railways relative to the size of the Island, we recommend that the railways remain in public ownership but that a Board of Directors are formed to oversee the railways operation, providing the basis for the railways to operate as an arm's length company. The Department for Enterprise (DfE) should have more influence in the specification of the railway's activities to ensure synergies with Visit Isle of Man and Manx National Heritage. Overall, however, the DoI would retain ultimate responsibility infrastructure and other operational liabilities.

1.7.3 Our work gave consideration to operation of the railways as a charity, but due to the level of ongoing support required we are unconvinced that such an approach would yield further benefits.

1.8 A Long Term Strategy

1.8.1 Since around 2010 the railways have been in a position of recovering from a long period of underinvestment, and a concerted and successful effort has been made to move from reactive maintenance and investment to proactive asset management. There is now a need to evolve the approach to develop a clear strategy for the development of the railway over the period to 2040. This review should provide a foundation for this approach.

1.9 Summary

1.9.1 In the remainder of this report we present our response to questions contained in the Terms of Reference in more detail.

2. INTRODUCTION & TERMS OF REFERENCE

- 2.1.1 SYSTRA Ltd have been commissioned by the Isle of Man (IoM) Department of Infrastructure (DoI) to undertake a review of the heritage railways on the Isle of Man and complete an Economic Impact Assessment (EIA).
- 2.1.2 The rationale for this study is to produce an accurate analysis of the true value of the railway to the economy and wider society, and consider if the railways are being operated optimally and with a suitable governance structure.
- 2.1.3 Whilst a similar study was commissioned in 2018, this study needs to be seen in the wider context of the series of economic shocks that have occurred in the last five years including the COVID-19 pandemic and the significant rises in inflation and “cost of living crisis” that have been compounded by the economic effects of the Ukraine war, all of which have impacted on government finances on the Island and the cost of rail operations.
- 2.1.4 In parallel, the railways on the Island have been continuing through a process of transition in terms of their asset management and investment, as well as their business development. The impact of this is that the railways ability to respond to change is different to how it might have been in the past.
- 2.1.5 The DoI has developed a detailed Terms of Reference for this study, the content of which is appended to this report (**Appendix B**). We have addressed the Terms of Reference through the chapters in this report, and have grouped specific requirements in to a series of themes, as set out below:
- Chapter 4: Current Financial Performance.
 - Chapter 5: The Economic Contribution of the Railways.
 - Chapter 6: Benchmarking with Comparator Railways.
 - Chapter 7: Cost Benefit Analysis of Route Sections.
 - Chapter 8: Governance Structures.
- 2.1.6 Within each chapter we highlight which points from the terms of reference we are addressing and set out our response to them.
- 2.1.7 Chapters 4 to 8 are bracketed by Chapter 3, providing strategic context and recent background to the railways on the Island, and Chapter 9, which presents our recommendations on the way forward for the railways.

3. CONTEXT & ROLE OF THE RAILWAYS ON THE ISLE OF MAN

3.1.1 The heritage railway network on the Isle of Man is formed of four distinct railways:

- Isle of Man Railway (IMR) – steam railway linking Douglas (Bank Circus) and Port Erin, via Castletown.
- Manx Electric Railway (MER) – electric tramway linking Douglas (Derby Castle) with Ramsey, via Laxey.
- Snaefell Mountain Railway (SMR) – electric tramway linking Laxey (interchange with MER) and the summit of Snaefell.
- Douglas Bay Horse Tramway (DBHT) – a horse-drawn tram linking the centre of Douglas with Derby Castle.

3.1.2 As a network, the lines are almost unique in the British Isles in still substantially operating their original fleets with only very limited changes, making them historically very important and providing them with a unique selling point.

3.1.3 The figure below present the geography of the network.

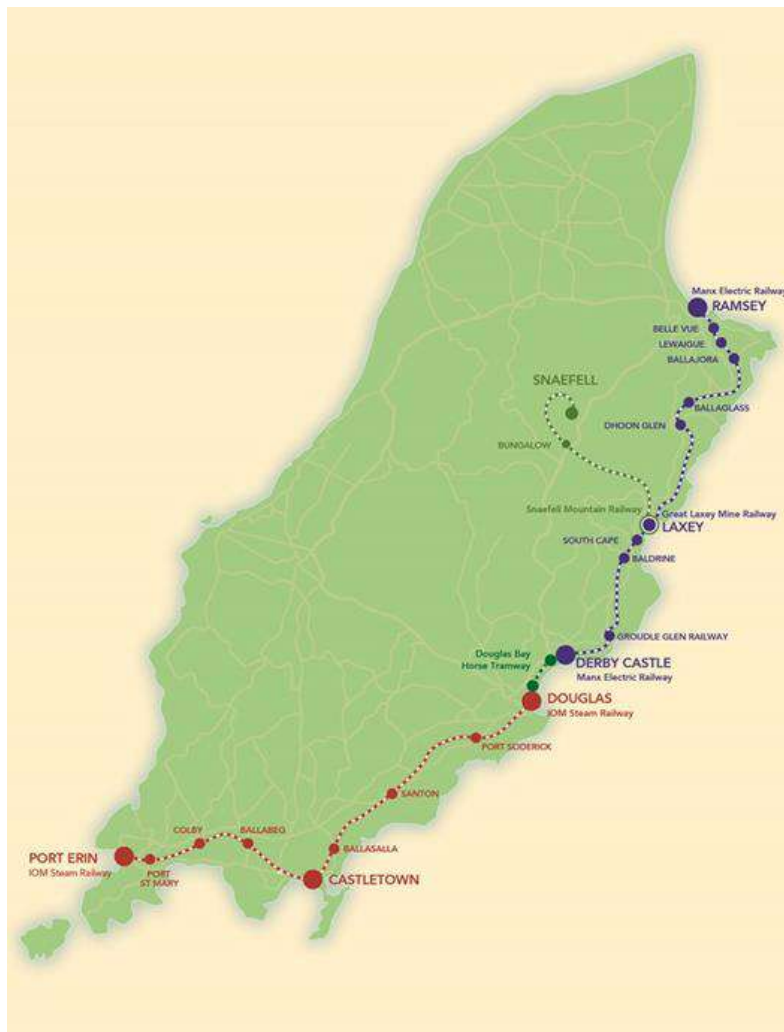


Figure 1. Isle of Man Rail Network

- 3.1.4 The oldest of the routes is the IMR which opened in 1873, followed by the DBHT in 1876. The MER was opened in 1893, with the associated SMR being completed in 1896.
- 3.1.5 Currently all four routes are managed together by Isle of Man Transport, which is a division of the DoI. The current organisational structure based around government ownership has evolved over more than 60 years.
- 3.1.6 The government first became involved in ownership of the railways in 1957 when the government purchased the Manx Electric Railway company (including the MER and SMR), which had been struggling financially. Meanwhile, the IMR had been operating train services at a loss for a number of years, but had survived by diversifying into bus operations. The original operating company closed the network in 1965, but services were revived in 1967 after Lord Ailsa leased the network from the company. Ultimately, after the closure of the Douglas – Peel and St. Johns – Ramsey route, and Lord Ailsa had pulled out, the remaining rail service from Douglas to Port Erin along with the bus services were nationalised. Finally the DBHT, having been managed by Douglas Corporation, was transferred to government control in 2016 after the scale of losses on the route became unsustainable for the Corporation.
- 3.1.7 It can be seen that in all cases the move to government ownership has been driven by the conflict between the financial challenges of ongoing operation and investment, and the economic and social value that the railways provide. In the case of the both the IMR and MER, the railways have transitioned from being a core part of the transport network on the Island to primarily being visitor attractions targeted at leisure journeys. Such changes mirror the experience elsewhere in the British Isles, where first bus competition and then increased car ownership impacted on rail usage – however, where the Isle of Man is unique is in having facilitated the transition from being a core part of the transport network to a heritage asset whilst providing a continuity of service.
- 3.1.8 By undertaking the transition discussed above, the Island has maintained a very extensive rail network for its size. To place this in context, the Isle of Man has three times as much railway line per person as Great Britain does. This almost inevitably means that the Island incurs proportionately large costs for the operation of the railways. However, as described below, the railways play an important role in generating tourist income for the Island which partly justifies this outlay.

3.2 The Role of the Railways

- 3.2.1 When originally built, the railways on the Island were intended to serve the needs of local residents and businesses with both passenger and freight trains. As tourism grew in the late nineteenth century the railways played an increasingly important role in the tourist economy, initially as a means for tourists to move around the Island, but increasingly over time as an attraction in their own right.
- 3.2.2 In their current form, the railways represent a core part of the tourism offer on the Island, whilst also providing a leisure activity for residents and their friends and family. At the margins, the railways also maintain a role in providing transport for local residents, such as on the northern parts of the MER where the railway takes a different route from local bus networks.

3.2.3 The importance of the railways to tourism, both as an activity and part of the marketing of the Island as a whole, can be seen in the ratings of railway attractions on websites such as Trip Advisor. The IMR is the top ranked attraction, followed in second place by the bus and rail network as a whole, whilst the DBHT takes 8th place. These ratings highlight how the railways are at the centre of tourism in the Island and are highly valued by visitors to the Island.

3.3 The Railways Place on the Island

3.3.1 The combination of railways on the Isle of Man is together unique. Not only is this important from the perspective of railway history, but of greater relevance is the place that the railways have in the social and cultural history of the Island. The character of the railways with their original rolling stock that dates back as far as the 1870s in the case of the IMR steam railway provides a direct, highly-visual link to the Island's history.

3.3.2 Whilst the purpose of the railways have changed over time, with their role moving predominantly towards leisure journeys by both Islanders and visitors, they retain a place in the social and cultural fabric of the Island.

3.3.3 This social value is important to individuals, but also has a role in the identity and presentation of the Island to outsiders, as in combination with other parts of the Island's character it helps to define the Isle of Man's unique identity to visitors and potential residents.

3.3.4 The importance of the Island's Railways can be seen in the response to the public consultation held as part of this study. Almost 5,000 responses were received, of which over half were from residents of the Island. Across all respondents, more than 70% highlighted the importance of the heritage character of the railway and 16% used the word "identity" in their descriptions of the importance of the railway, highlighting how the railways form part of the character of the Island.

3.3.5 The fact that approaching half of responses to our survey were from non-residents also demonstrates how important the railway is to visitors who gain value and enjoyment from both the physical assets and also its wider context.

3.4 The Current Organisation

3.4.1 As highlighted above, the railways sit within the DoI. For many years they have been jointly managed with the Island's bus services. This partly reflects the history described above with the IMR having been responsible for the development of bus services in the private sector and both the bus and rail parts of IMR being nationalised at a similar time.

3.4.2 More pragmatically, the rail and bus networks share similar characteristics, especially around ticketing, fares, and management – this allows economies of scale to be realised through shared management. The railways do however have some unique features around infrastructure and fleet maintenance.

3.4.3 Until recently, the management structure of the public transport operation was based on a Director of Public Transport supported by a Chief Engineer and Head of Operations, with

all three being responsible for both bus and rail issues. In recent years the structure has been altered with the bus and rail operations having separate dedicated managers.

3.5 Subvention

3.5.1 As described above, the railways have at various points entered government ownership for financial reasons. Although, over a number of decades costs have been reduced (for example via a move to seasonal rather than all year operation), the railways still require a level of subvention to support their farebox and other income sources. Encouragingly, the level of subvention has remained broadly constant in real terms since 2018 for a number of years (excluding during the COVID-19 pandemic).

3.5.2 Without a transformational change in the structure of costs, and by implication the scale of operations, it is unlikely that the railways could function without some level of subvention.

3.6 Developments & Investment in Recent Years

3.6.1 Since around 2009, the railways have seen a period of sustained but necessary investment. Much of this investment arose from a period in 2008 when sections of the MER track were found to be unsafe. Following a period of reactive maintenance to address this issue, a more sustained programme of investment has taken place which has resulted in the renewal of much of the track on the MER and SMR and the overhead line on the MER, with work planned to commence on the overhead line on the SMR. Linked to this, the system of substations that feed power to the SMR and MER have also been renewed, providing a safer and more reliable infrastructure.

3.6.2 Much of the IMR track was renewed in around 2002, meaning that the level of renewals on this route has been lower. Instead, there has in the last five years been an emphasis on locomotive overhauls, which has increased the operational steam fleet to four locos with plans to increase this further. This has moved the railway from an unsustainable position, where during some periods only a single locomotive was available, to a position where there is some limited resilience in the fleet, improving the reliability of the service offered and giving the flexibility to develop events revenue.

3.6.3 Since the DoI became responsible for the DBHT in 2016, there has been very significant investment which was required to improve assets that were in a poor condition. The Strathallan depot, where the DBHT trams are based, has been rebuilt and now provides a booking office for the adjacent MER Derby Castle station and a base for infrastructure staff across the whole network. Moreover, as part of the Douglas promenade renewal scheme, almost all of the DBHT track has been renewed. Minor works have also been undertaken to improve the DBHT stables with proposals for further maintenance works.

3.6.4 In addition to the above there have been a range of structures renewals that have been funded across the network.

3.6.5 By their nature, the need for investment in renewals of assets in railways varies significantly over time. Much of the investment in the last 10 years has been addressing past failures to undertake renewals in a timely manner, and moving forward the railways are approaching a position where structured investment in renewals can be planned to

minimise peaks and troughs in investment and provide funders with a clearer understanding of future requirements.

3.6.6 Over the last 10 years, there has also been a focus on increasing passenger numbers across the network. Prior to the COVID-19 pandemic, the railways were together attracting around 360,000 trips per annum. At the time of writing, figures show that this total was exceeded in the 2023 operating year, partly as a result of the railway working closely with coach tours and cruise ships to increase the number of visitors to the railways.

3.6.7 However, the notable exception to this has been the DBHT. Since 2016, DBHT operation has been subject to significant change with periods of closure and the truncation of the route short of the War Memorial in Douglas as a result of the promenade scheme. This, in combination with the COVID-19 pandemic, has meant that 2023 was the first year for some years where there has been the opportunity to grow the route.

3.7 Summary

3.7.1 The railways have evolved over the last 150 years, changing their role and ownership. After a period of underinvestment which in turn triggered a large amount of corrective investment, the railways are moving towards a period of stability in their investment cycle. They are also benefiting from work to grow passenger demand.

4. CURRENT FINANCIAL PERFORMANCE

4.1.1 Within this chapter we review the recent financial performance of the four railways. This covers both capital and revenue expenditure and sources of income. The review examines changes since the previous review undertaken in 2018, though it should be noted that the 2020 and 2021 seasons were both heavily impacted by the COVID-19 pandemic and so analysis of these years is largely meaningless in the longer term context.

4.2 Methodology for Financial Performance Analysis

4.2.1 Costs and revenues incurred by all four railways and services operated by Bus Vannin on the Island are managed within a single set of accounts. Since the previous railway review in 2018, a concerted effort has been made to follow that report's recommendation that costs incurred by a specific railway are recorded and presented as such. These efforts have allowed a better allocation of costs and revenues and therefore a better understanding of the contribution of each railway to overall performance. However, there is still some way to go in implementing full separation of costs and therefore, throughout this section the costs and revenue presented rely on certain assumptions for allocation. These assumptions are described below

- Staff costs have been allocated according to head count for the relevant staff costs type (e.g. other engineering) in the railway's organisational chart. Roles serving more than one railway are split according to the relevant cost driver, for example: track maintenance staff and materials costs are split based on track length, with a reduction in cost for the DBHT to reflect the simplicity of the tramway infrastructure (newly installed slab track).
- Some true shared costs and revenues do exist, for example management staff costs and revenue from Douglas – Snaefell return tickets; these have been apportioned between public transport roads and railways. For example, section 4.6.2 discusses the split of Go Explore fare revenue between bus and rail while management costs are apportioned between the railways based on hours of service provided by each railway.
- Data used is from a wide range of sources, including not only the financial accounts but also lists of invoices and purchase orders, internal management documents and reports from other government agencies. Estimating exact passenger numbers relied on a range of information including ticket machine data, railway-conducted counts and an independent passenger count. Due to the use of smartcards, group tickets, concessionary passes and boarding, as well as complexities around events passengers, the number of trips estimated varies to a small extent depending on data source.
- A method based on an uplift of passenger counts by expected additional passengers at unmanned stations was employed to provide a fuller coverage of passenger numbers, however there are still small discrepancies between passenger trips estimated based on different data sources. The increase in accuracy of passenger counts may also slightly overstate passenger number increases in later years but where possible consistent data sources across years are used to reduce this small risk.

- Financial analysis is focussed on the most recent complete financial year, April 2022 – March 2023. However, as apparent from analysis shown in Figure 6, 2022-23 passenger numbers and therefore revenue appear to still be impacted by COVID-19’s suppression of demand; additionally, significant fares increases were implemented at the start of 2023/24 financial year. To provide a clearer picture of the ‘new normal’, some partial-year analysis of 2023 has also been provided.
- The 2017/18 financial year has been used where relevant to provide comparison to results reported in the previous railways study, while 2018/19 is used as the oldest year comparable financial data in a comparable format exists and 2019/20 as the most recent pre-COVID year. Analysis of 2020 and 2021 are excluded due to the exceptional nature of the COVID-19 period.

4.3 Overview of the Railways’ Financial Performance

4.3.1 The Isle of Man’s railways are loss-generating when comparing costs to directly generated revenue; the scale of this loss represents the subvention needed from central government to sustain the operations of the railways. Comparing two standard pre-covid years to 2022/23, it is clear that the levels of costs, revenue and resulting subvention have varied very little in real terms (see Figure 2). During a period where the costs of train operation have increased faster than general inflation, and considering the very limited increases in fares over this period these results demonstrate that railway management have been closely focused on cost management.

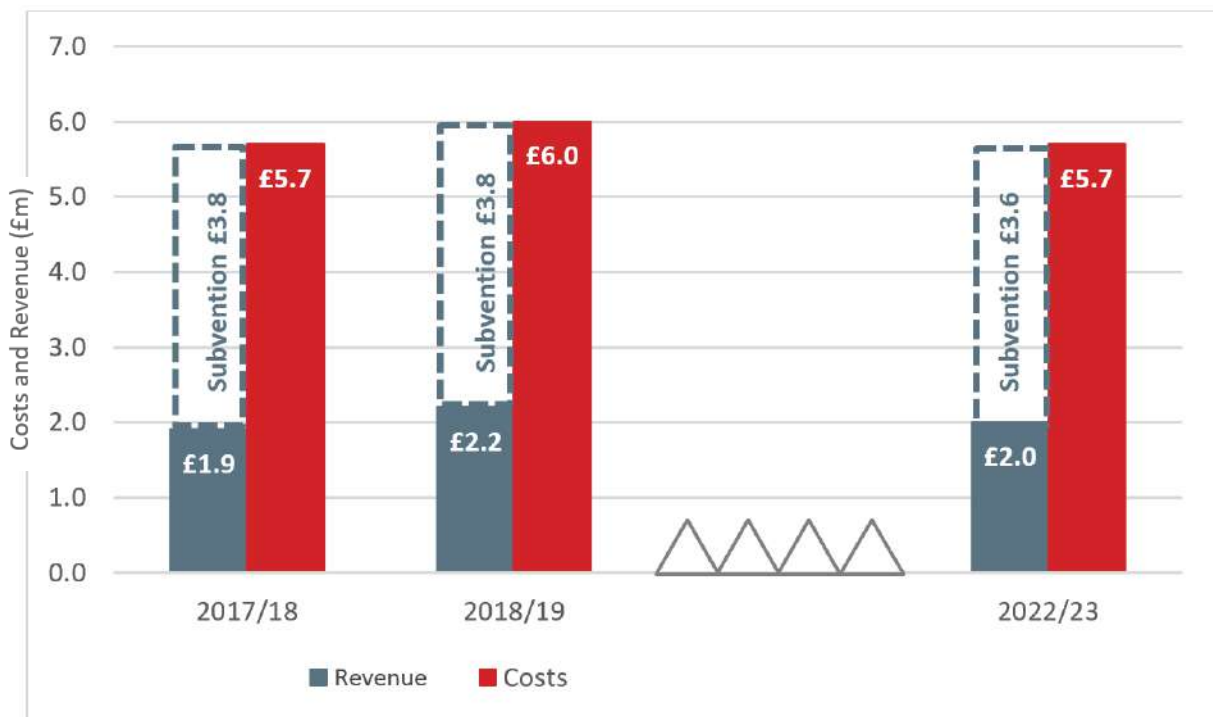


Figure 2. Railways: Comparison of Cost, Revenue and Subvention in Inflation adj. 2022 Prices (£m)¹

¹ Unless specified, IOM CPI, all categories is used to index costs

- 4.3.2 In nominal terms, the revenue subvention has increased from £3.0m in 2017/18 to £3.4m in 2018/19 then to £3.6m in 2022/23.
- 4.3.3 The railway also requires a capital subvention each year to cover the capital costs of repairing and replacing the track, building and overhauling rolling stock infrastructure. Table 1 shows the capital costs from 2016-2022, with most costs identified with a specific railway.

	2016	2017	2018	2019	2020	2021	2022	TOTAL
DBHT	0.0	0.2	0.2	1.3	0.5	0.0	0.0	2.3
MER	0.7	0.6	0.4	1.7	3.8	1.3	1.9	10.2
SMR	1.6	1.3	1.9	2.2	1.7	1.2	0.4	10.2
Steam	1.0	0.5	0.6	0.4	0.4	0.3	0.5	3.8
Unallocated	1.0	1.2	1.7	2.0	1.6	0.2	0.7	8.3
Total	4.3	3.9	4.8	7.5	7.9	3.0	3.4	34.8

Table 1. Total Capital Subvention by Ledger Year, with Capital Spending Allocated to Railways Where Appropriate (£m)

- 4.3.4 The capital subvention has averaged £5m per year, with higher spend during 2019 and 2020.
- 4.3.5 The MER and SMR appear to have received the most capital investment over this period, although addition of the remaining unallocated costs to any single railway would change that ranking. The investment in the MER and SMR has been required to address issues track condition and also address the need to electrical sub stations and feeder systems.
- 4.3.6 The IMR steam railway has largely avoided the need for ongoing infrastructure investment with much of its investment being targeted at rolling stock, especially locomotive overhauls. The level of investment in the IMR can be seen as stable long term rate of investment.
- 4.3.7 The DBHT has seen a very substantial investment relative to the size of the operation with the renewal of the Strathallan depot complementing the complete renewal of the track and overhauls of the trams. The only outstanding capital investment in DBHT is the renewal of the stables and potentially the reinstatement of the route to the sea terminal.
- 4.3.8 The level of investment since 2016 should be seen as exceptional, with a number of factors on the MER, SMR and DBHT in particular putting pressure on capital expenditure. The renewal programme on the MER and SMR is close to completion after which capital schemes could be targeted at enhancements that will contribute to revenue growth.

4.4 Costs and Contribution to Net Loss

4.4.1 The Isle of Man railways use owned assets to provide transport services. As a result, the main costs are those associated with operating the train services and maintaining track and rolling stock assets. Figure 3 shows that by far the greatest element of cost is staff wages, making up 70% of total costs. Engineering plant and materials make up another 13% of costs, while overheads (excluding staff overheads) are a small proportion of costs.

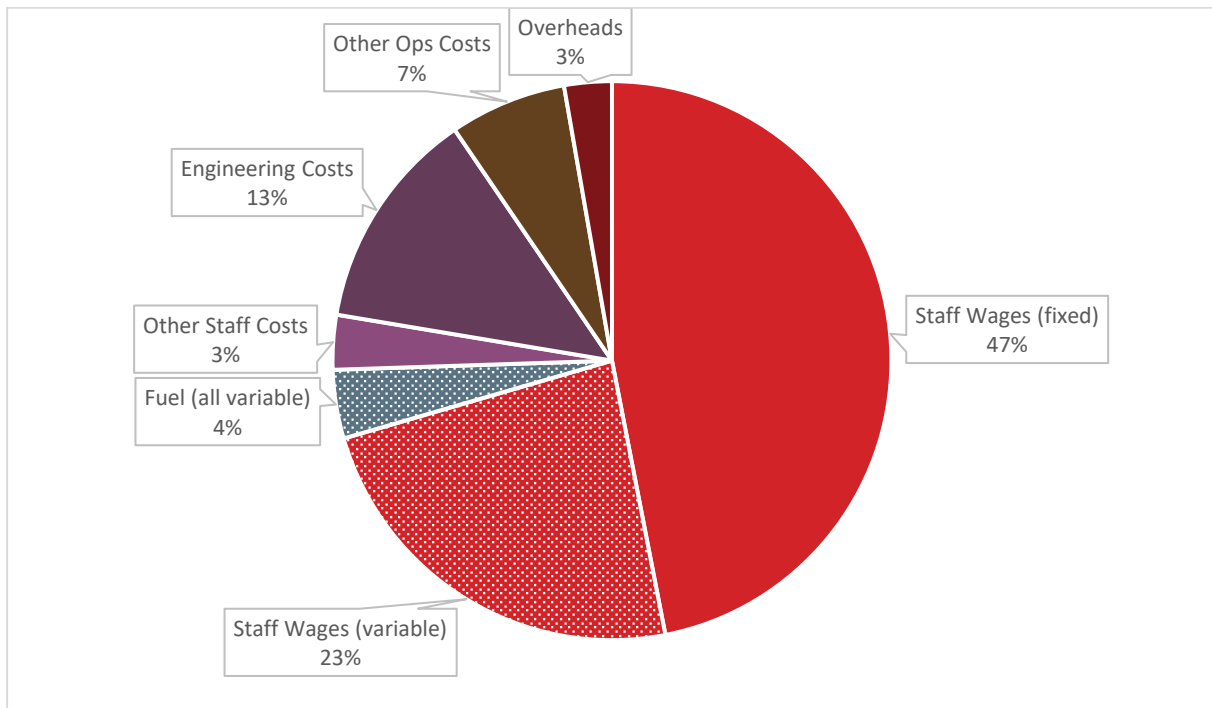


Figure 3. Railways: Constituents of Cost by Category 2022/23

4.4.2 Some aspects of costs will vary with the level of services provided. In particular, a third of staff wages (Staff wages variable) relate to drivers, conductors and station staff, as well as some engineering tasks which are directly related to the number of services operated. Fuel costs vary proportionally to levels of service. While other cost categories may vary with non-marginal changes, with the given fleet and infrastructure assets to maintain and other staff needed to support some level of service the 27% of costs identified (staff and fuel) represent the majority of variable costs at service level.

4.4.3 Staff costs represent the majority of the railway's day-to-day costs. However, evidence available suggests these high staff costs are due to the nature of operations, and further cost control measures are unlikely to create more than marginal savings without service reductions. In addition some staff are also involved in the management of capital spend, which if added to the total costs of operation would lower the proportion of spend on staff. Table 2 compares staff levels costs in 2017/18 and 2022/23.

	2017/18	2022/23
Staff Count (FTE Equivalents)	108	106.5 ²
Staff Cost (nominal prices)	3.4	4.1
Staff Costs Adjusted for General Inflation (IOM CPI)	4.0	4.1
Staff Costs Adjusted for Cost of Labour Inflation ³	4.4	4.1

Table 2. Staff Count and Costs Pre and Post-Covid (£m)

4.4.4 The number of full-time equivalent (FTE) employees, estimated by dividing the number of hours of seasonal staff required by the hours an average full time employee would work in a year, shows current staffing levels are very similar to 2017/18 (106.5 vs 108). There is an increase in staff costs of over 20% shown in the accounts between the two years (4.1m vs 3.4m). However, when the 2017 cost is uplifted to 2022 prices using the change in the general CPI index, staff costs hold close to constant. Further, when uplifting 2017/18 staff costs by the increase in IOM manual workers average weekly earnings (AWE) real staff costs have decreased by 7% (£4.4m vs. £4.1m, see Table 2).

4.4.5 Considered individually, once all costs, including shared costs and overheads, are apportioned across the railways, all railways require some level of subvention (Figure 4).

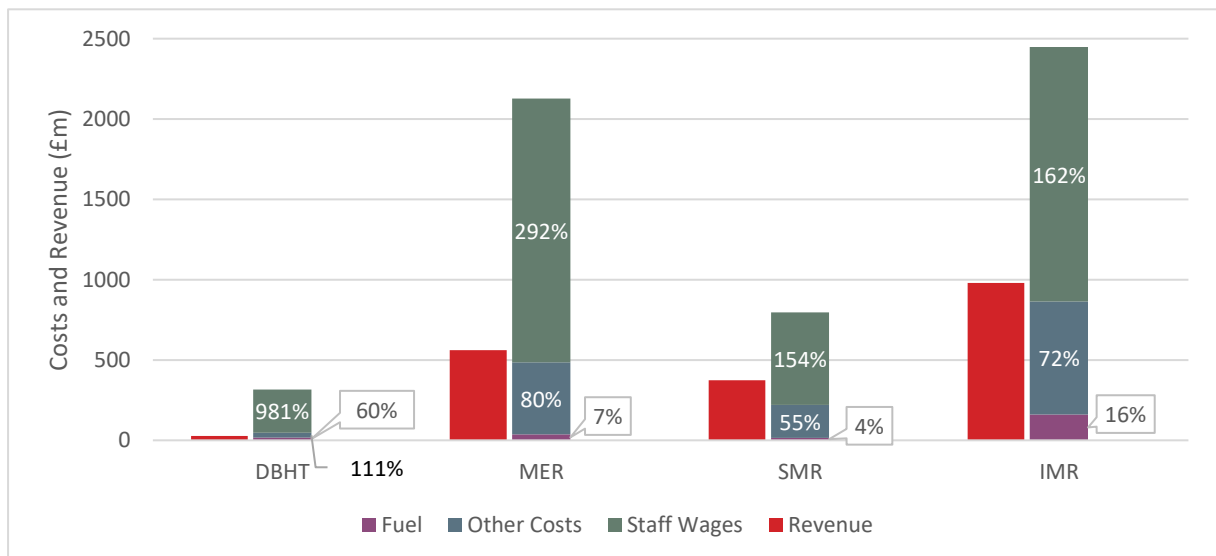


Figure 4. Staff, Fuel and Other Cost Categories as a Percentage of Revenue by Railway FY2022/23 (£'000)

4.4.6 When disaggregated across railways, the majority of cost still consists of staff-related costs, with all railways' staff costs exceeding their revenue raised. The MER, SMR and IMR

² Total includes 14 roles currently vacant; similar levels of vacancy were present in 2017/18

³ IOM AWE, manual workers (all)

raise revenue in excess of non-staff costs. The DBHT has the highest proportion of staff costs, with low engineering materials and plant costs (Figure 4). DBHT revenue has greatly increased from 2022 to 2023, so although non-staff costs exceed revenue in financial year 2022/23, this is not likely to be the case in 2023/24 (see section 4.11 for further discussion of DBHT revenue).

- 4.4.7 Of the four railways, the SMR is closest to covering its costs, reflecting the shorter route but higher fares that characterise this route.
- 4.4.8 Fuel costs contribute a higher proportion of costs for the IMR steam railway (16%) than the MER and SMR. The relatively high price of coal, and the need to keep engines lit all day increase the fuel costs for this railway above the electric-powered tramways. The DBHT includes cost of purchased feed and purchased supplementary feed as fuel costs, which are incurred regardless of service provision. Recent use of the DBHT's own source of hay has resulted in a lower than budgeted fuel costs for the tramway.
- 4.4.9 Other costs include plant and material costs, depot and building costs, as well as costs related indirectly to staff such as health and safety training. For the IMR event costs also contribute to other costs.

4.5 Revenue and Demand: Contribution by Income Source

- 4.5.1 Revenue in 2022/23 had returned to close to 2018/19 levels (slightly exceeding 2018/19 levels in real terms (Figure 5)).

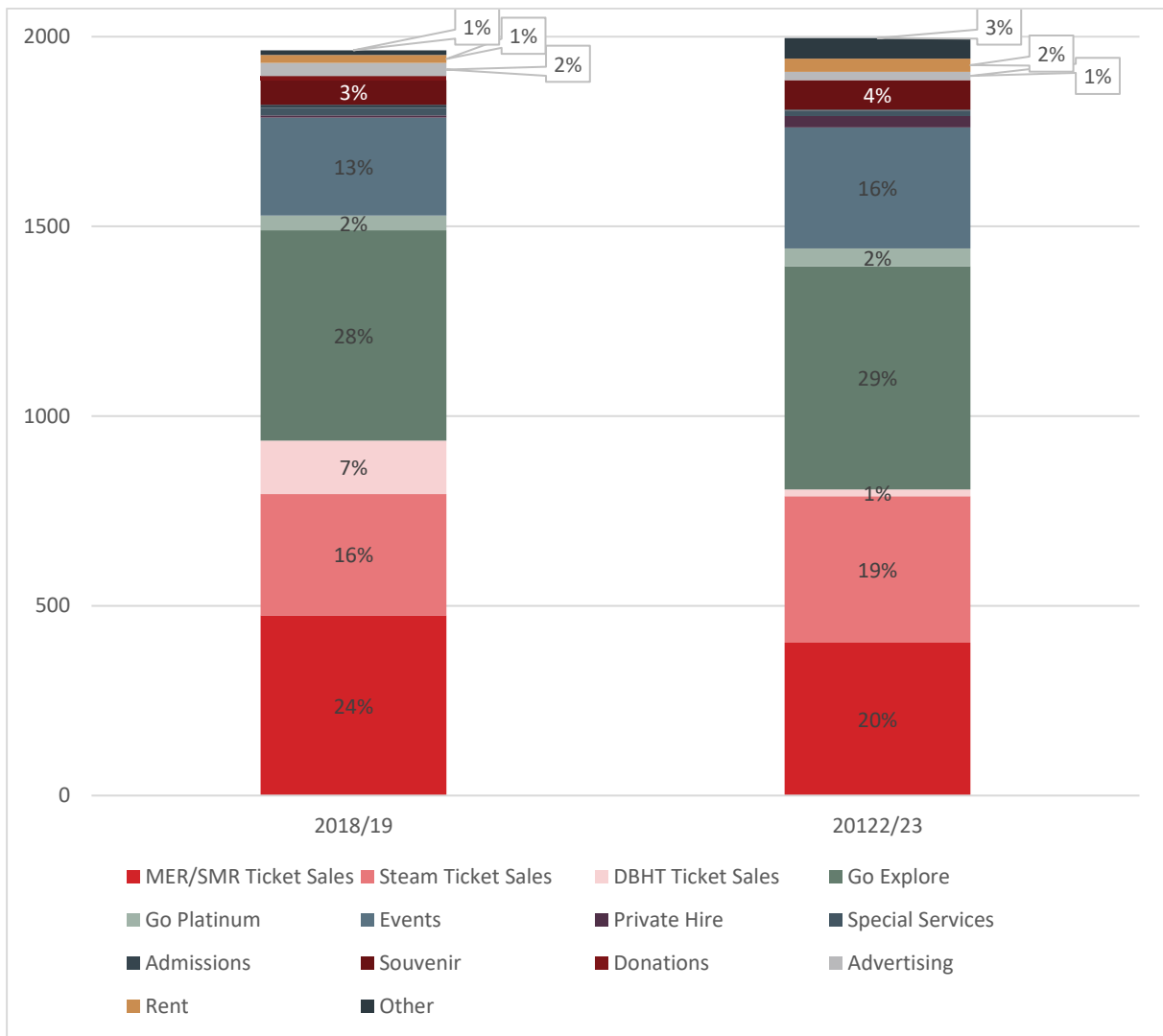


Figure 5. Sources of All Income 2018/19 and 2022/23 Compared (£'000)

4.5.2 The stable levels of revenue reflect stable levels of service provision between the same two years (Table 3).

FINANCIAL YEAR	MER	STEAM	SMR	DBHT
2019/20	5.8	1.8	5.1	0
2022/23	5.3	2.0	5.1	2.5
2023/24	5.1	1.7	5.0	5.5

Table 3. Scheduled Annual One-way Service Count by Mode, Excluding Dining and Christmas, ('000)

- 4.5.3 Sale of single or return tickets for one route (or in some cases combined line tickets for the MER and SMR) make up 40% of income in 2022/23 and 47% in 2018/19; this fall in the share of revenue provided by direct ticket sales is due to the very low levels of DBHT ticket sales in 2022/23 (Figure 5). Sales of day or multi-day travel cards including bus travel and some or all railway lines make up a further 28-29% of revenue. Annual multi-modal passes only make a 2% contribution to total income (Figure 5).
- 4.5.4 Events, private hire and special services income together makes up less than 20% of income in 2022/23. Although this is a larger proportion of revenue than in 2018/19, the absolute value of events revenue, once adjusted for inflation, is similar to the 2018/19 value (Figure 5 throughout).
- 4.5.5 While revenue levels had returned to their 2018/19 levels by 2022/23, this was still below peak pre-pandemic revenue. Figure 6 shows the last five years of revenue from railway ticket sales and Go Explore travelcards, against scheduled service passenger counts.

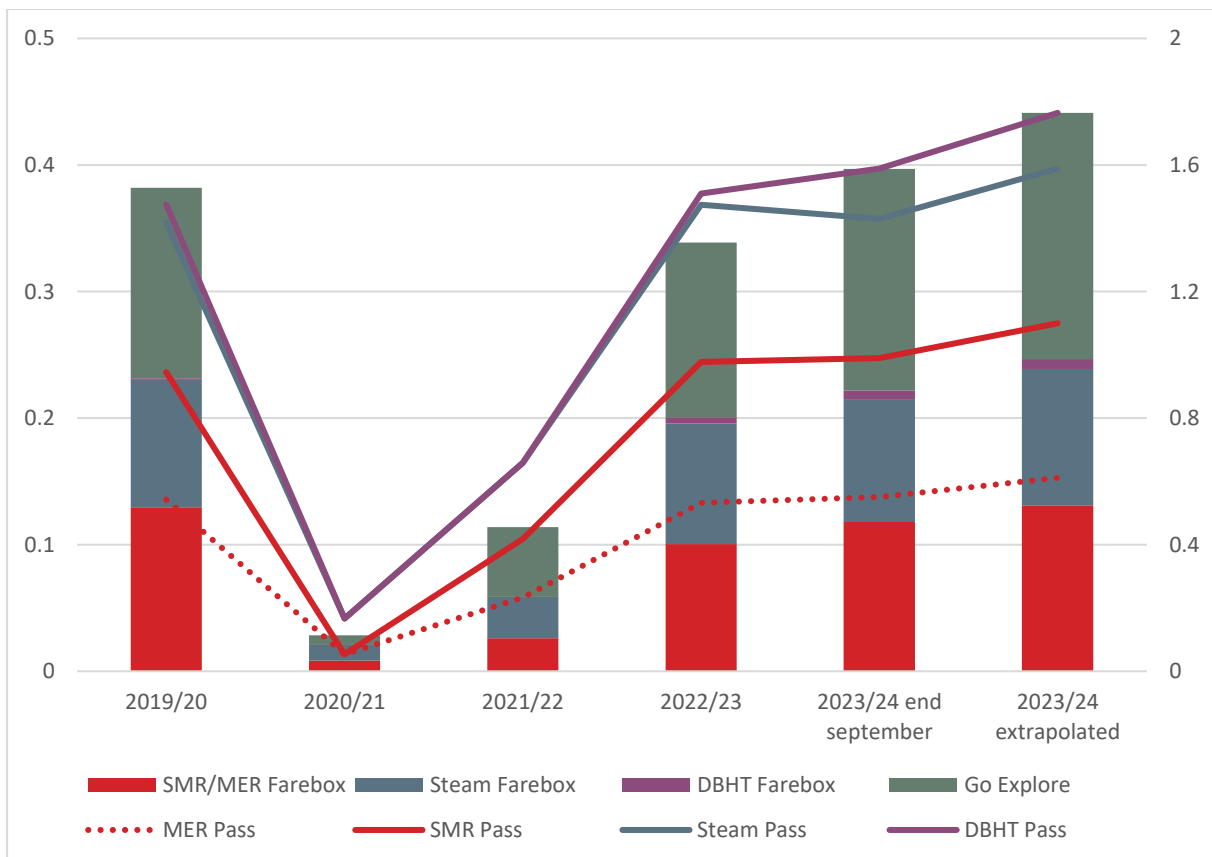


Figure 6. Ticketed Trips (left axis, £m) and Nominal Fares Revenue (right axis, £m) Over Time

- 4.5.6 The stable proportions of revenue seen in Figure 5 are reflected here in only slight variations in proportions of ticket revenue from each source across the years, although there is a small increase in the share of fare revenue from Go Explore ticket sales in 2023/24. DBHT revenue was low in 2019/20 and 2022/23 due to services running over a reduced period of both years as a result of the promenade upgrade (Figure 6).

4.5.7 While passenger numbers on scheduled services returned to pre-covid levels in 2022/23, nominal revenue did not. However, spring 2022 compared to spring 2019/20 showed very low passenger numbers, suggesting that COVID-19 was still having a significant impact on demand; 2022/23’s autumn services had higher passenger numbers than 2019/20, resulting in similar totals for the year. In contrast, passenger numbers and nominal fare revenue for the year-to-date by end of September 2023 had exceeded the 2019/20 annual total (Figure 6 throughout). Uplifting the 2023/24 year-to-date passenger and revenue values to full year values gives a full year total revenue that is equivalent to 2019/20 in real terms.

4.6 Yield per Trip and the Impact of Ticket Type

4.6.1 Realised ticket revenue per passenger per trip (otherwise known as yield) reflects how many passengers take journeys between which stations, as well as discounts resulting from bulk sales and tickets covering more than one trip (for example tickets covering a return trip from Derby Castle to Snaefell, or Go Explore smartcards) and free travel relating to age or disability. Table 4 shows the IMR to have the highest fare yield per trip, and the DBHT the lowest.

	DHT	MER	SMR	IMR
Average Realised Fare Yield (per trip)	£2.25	£3.27	£2.93	£4.57

Table 4. Estimated Average Realised Fare Yield 2022/23⁴

4.6.2 Go Explore smartcard fares represent nearly 30% of total income and therefore impact realised fare yield. Go Explore card revenue is joint revenue and therefore must be apportioned between bus and relevant railways in order to understand each mode and railway’s contribution. A reasonable apportionment method is by number of trips, weighted by ticket price per trip; this method does not assume one form of transport is the main driver of demand, nor does it assume additional modal shift benefits occur with one mode over another. This method is currently in use by the DoI and results in an allocation of 75% of Go Explore ticket revenue to rail.

4.6.3 Table 5 shows the current Go Explore ticket adult ticket prices and the share allocated to rail.

GO EXPLORE	ADULT PRICE	75% OF ADULT
1 day	£19.00	£14.25
3 day	£39.00	£29.25
5 day	£45.00	£33.75
7 day	£56.00	£42.00
<i>Modelled 6 trip average fare equivalent</i>		<i>£40.44</i>

Table 5. Go Explore 2023 Ticket Prices

⁴ Calculation based on estimated passenger numbers and apportioned revenue

- 4.6.4 Using trips by Go Explore card and Go Explore ticket sales data derived from 2022 Ticketer data, the average number of trips on each railway per ticket have been estimated; these trips were multiplied by half their railway-specific average return ticket fare, and the resulting '6 trip fare equivalent' is higher than the rail share of all but the 7 day adult Go Explore ticket price. Assuming the average Go Explore ticket duration is less than 7 days, this represents a significant discount, reducing the realised fare yield.
- 4.6.5 It is important to note that the 75% apportionment of Go Explore revenue to rail would need to be assessed each time ticket prices change, as if ticket prices for Go Explore do not increase in line with the direct rail fares, this 75% apportionment would no longer be correct.
- 4.6.6 Approximately 15% of revenue is earned through events, rather than scheduled services. Events have a higher ticket yield even once events revenue is adjusted down to include direct event costs and catering costs; event adjusted yield still remains higher than regular fares income even after assuming 50% of all marketing costs related to events (Figure 7).

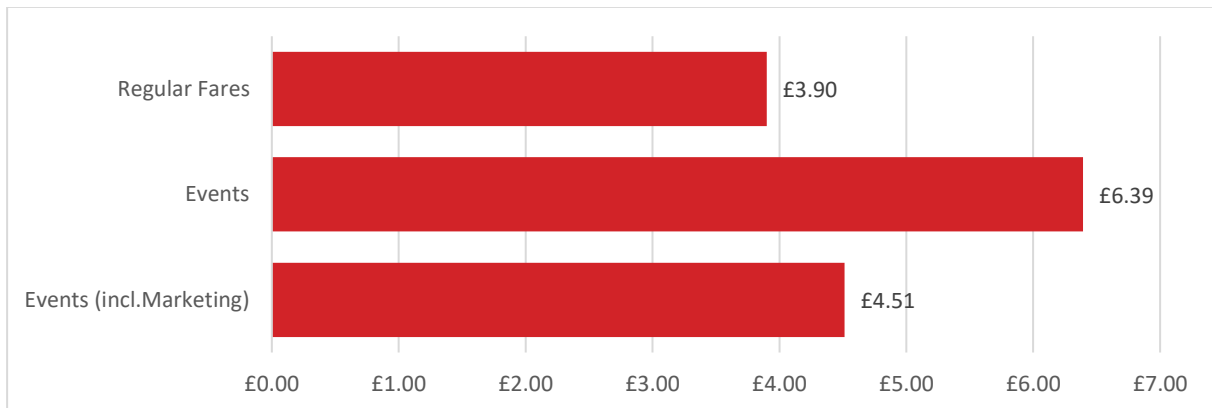


Figure 7. Estimated Average Realised (Adjusted) Ticket Revenue per Trip⁵

4.7 Trip Distribution by Origin and Destination Pair

- 4.7.1 The large proportion of ticket sales that are made through Go Explore cards and the railway's approach to data collection at the route level poses a challenge for understanding the distribution of trips across station pairs. No programme of regular passenger surveys exist, however, a sample passenger count was conducted recording 'ons' and 'offs' on 24 sections of services over 7th and 8th July 2023.
- 4.7.2 One use of this data was to give an estimated distribution of passengers between the main flows on the MER and IMR. The estimates derived suggested that out of passengers using these main station three stations on each route, the resulting distribution of trips was as shown in Table 6 and 0.

⁵ Events are assumed to be equivalent to return trips in terms of operational cost, so that events revenue per passenger would be double that should in this chart

	MER
Douglas - Castleton	14%
Castleton – Port Erin	12%
Douglas – Port Erin	74%

Table 6. Distribution of trips between main stations

	MER
Derby Castle - Laxey	39%
Derby Castle - Ramsey	50%
Laxey - Ramsey	11%

Table 7. Uplift to apply to Stationmaster’s counts for ‘On’s not counted at smaller stations

4.7.3 This data was also used to uplift the total passenger numbers recorded at main stations by the additional proportion of trips made to intermediate stations, with the uplifts expressed as a percentage of the recorded total passengers at main stations:

	MER	SMR	IMR
‘Ons’ at masterless stations as a proportion of ‘Ons’ at stations with station masters	7%	6%	7%

Table 8. ‘Ons’ at smaller stations as proportion of ‘Ons’ at stations with station masters, by railway

4.8 Costs and Break-even Passengers for An Additional Service

4.8.1 The allocation of costs to each railway and the inspection of monthly cost data allows total variable costs to be identified⁶. Table 9 shows the estimated variable cost per mile.

4.8.2

⁶ P&L costs in general categories have been allocated on the basis of cost drivers to create estimated railway-specific splits of costs

	DHT	MER	SMR	STEAM
Variable Cost per Mile	£29	£9	£7	£19
Fixed Costs per Mile	£99	£17	£26	£61

Table 9. Estimated Variable and Fixed Costs per Mile (£)

4.8.3 Moreover, an understanding of the number of services scheduled in the year allow the total variable cost at service level to be estimated (Table 10).

	DHT	MER	SMR	STEAM
Total Variable Cost (at Service Level)	£30	£143	£31	£298
Average Realised Fare Yield	£2.25	£3.27	£2.93	£4.57
Variable Breakeven Passengers by Service	13	44	11	65
Average Capacity of a Service	32	85	48	242
Breakeven Load of a Service	41%	51%	22%	27%

Table 10. Derivation of Estimated Breakeven Rates for Marginal Additional Services, 2022/23

4.8.4 The variable costs include all fuel (except in the case of the DBHT, where animal feed is required year-round, regardless of operated timetable), some of the operational staff costs, including drivers, supervisors, conductors and ticket office staff, and some additional engineering labour. The break-even load of a service shows how full a service needs to be on each railway to cover the estimated marginal costs of running this service (Table 10 throughout).

4.8.5 Average loads across all services for each railway are show in Table 11.

	DHT	MER	SMR	STEAM
Average Load (passengers/capacity)	14%	31%	47%	26%

Table 11. Average Estimated Load for 2022/23 Financial Year

4.8.6 Comparing realised average load in Table 11 with the required load factor to cover variable costs in Table 10 shows running an additional marginal service that can cover variable costs and begin to generate contribution towards fixed costs is possible at

realistic levels of loading. This suggest there may be occasions where it would be worthwhile for the railway operate dedicated service for coach tours, especially on the MER and SMR, leaving timetabled services for other passengers and avoiding issues with crowding.

- 4.8.7 The estimated breakeven number of passengers per service for the network (i.e. the rate required to cover all costs, including fixed costs and overheads) exceeds the capacity of vehicles for every railway (Table 12).

	DHT	MER	SMR	STEAM
Breakeven Load of Railways Network	179%	145%	109%	112%

Table 12. Breakeven Loading Required to Cover all Costs, Based on 2022/23 Costs and Revenue

- 4.8.8 However, comparing Table 12 to Table 13 shows the huge decrease in costs needed to remove the revenue subvention. The MER would need to reduce costs to 26% of current cost levels, while retaining the same level of revenue, in order to achieve this, which is clearly unrealistic.

	DHT	MER	SMR	STEAM
Decrease in Cost Required to Cover Fixed and Variable Costs	-92% ⁷	-74%	-53%	-60%

Table 13. Reduction in Annual Costs Required for 2022/23 Costs to Equal 2022/23 Revenue

- 4.8.9 While very aggressive cost cutting would be needed to meaningfully reduce revenue subsidy, increasing yield, in combination with sustaining or increasing demand and therefore loading factor could offer a more realistic approach to reducing revenue subsidy.

⁷ Noting the 2022/23 season was the first reopening after the promenade refurbishment and that passenger numbers have increased significantly in 2023 data available

4.9 Supply: Appropriateness of Timetables and Re-Profiling Opportunities

4.9.1 One approach to reducing the net loss of a transport service is to reduce services when loading is expected to be below the breakeven marginal loading rate. This has recently received careful attention as a loss-minimising measure from the railway’s management. Change in services offered per month have been adjusted in 2022 and 2023 compared to the schedule in 2019 and earlier, displayed in Figure 8.

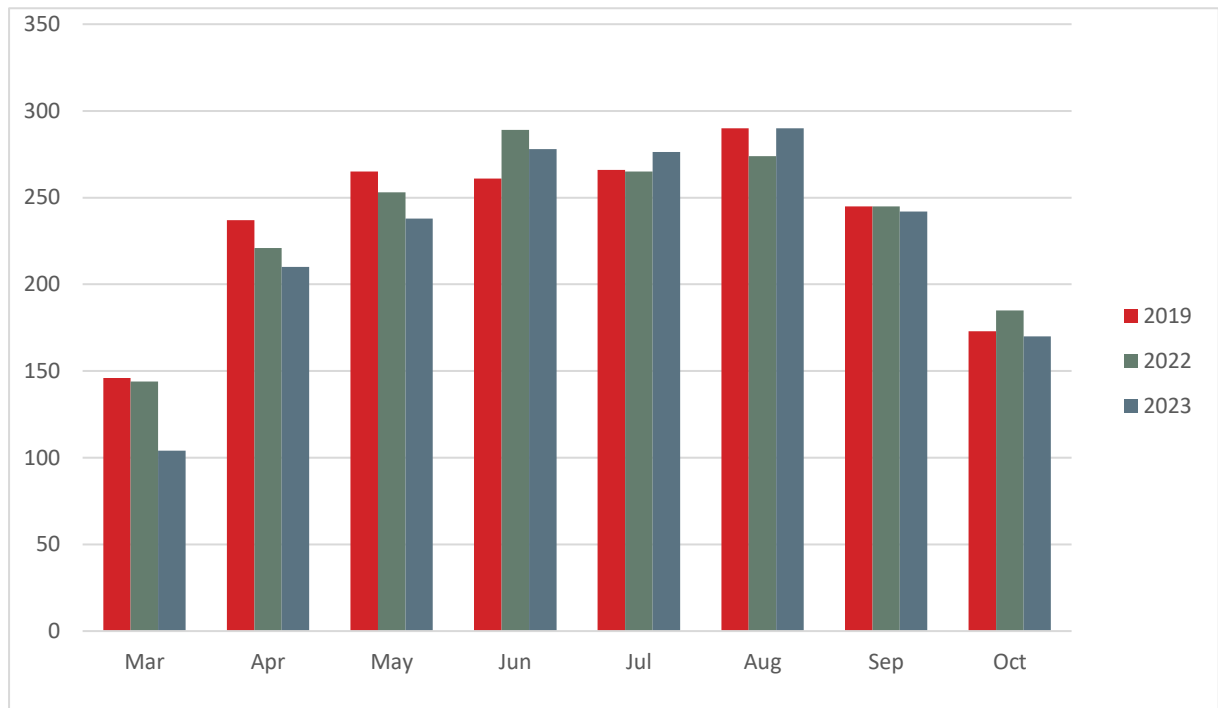


Figure 8. Total Scheduled Services per Month, IMR (Steam) Railway

4.9.2 In the 2023 timetable, an effort was made to reduce services in the early spring, in favour of services later in the year when demand is still buoyed by coach parties. Over the year this has resulted in a slight reduction in scheduled services (special events excluded). November services (not shown) were introduced as part of a wider shoulder season promotion campaign focussed on coordinating shoulder season opening times and providing access to tourist destinations.

4.9.3 Reducing the number of services available on a given day can increase loading rates if passengers are flexible on departure times. This therefore not only removes services that may not cover their marginal costs, but also increases the marginal revenue of existing services. No negative impact on total demand of this reduction in spring services has been identified, although any possible loss in demand will have been masked by the much larger impact of returning post-pandemic leisure travel.

4.9.4 Loading rates by day shows available capacity throughout the railways (0 to Figure 12); currently this available capacity is used to disperse passengers and redirect demand away from scheduled services where capacity is breached due to presales of tickets to coach and cruise parties to other services with capacity that day. This redirection of passengers to other services is achieved by requiring passengers to queue for the next available service, an issue that notably effects the MER.

- 4.9.5 Adding the average occupancy rate required to cover the marginal costs of an additional service added to the loading rate graphs allows the days where services cover marginal costs to be identified. The MER has weekday days throughout the season where, on average, the services cover their marginal operating costs but overall few days where this is achieved. The majority of MER services which cover their marginal operating costs are in August. Days of service are fewer in April and October, however, the level of occupancy for the days when services do run are comparable to mid-season, mid-week occupancy rates, suggesting that days of service are as appropriate in the shoulder seasons as in high season.
- 4.9.6 The IMR achieves loading levels that cover the marginal cost of an additional service on most weekend days and most days in August. Again, loading levels by day vary only modestly between months. The SMR covers marginal costs on the majority of days, with higher peaks of demand in the high season but no instances of days with extremely low loadings. The DBHT almost never covered the marginal costs of a service over an average day in 2022, with August showing a significant peak in loading compared to September onwards (0 to Figure 12 throughout).
- 4.9.7 Marginal gains in reducing net subvention may continue to be made by experimenting with shortening the season, particularly in 2024-25 onwards, when increase in year-on-year demand is less likely to be due to covid recovery and therefore more revealing of the elasticity of demand with respect to day of travel. However, these adjustments are unlikely to result in transformative cost savings.
- 4.9.8 Given the available capacity at the day-level aggressive reduction in timetables may appear attractive. Railway management and other stakeholders reported that customers are often required to wait for the next service due to over-capacity demand for a given service. This suggests that it would be possible to reduce service level without a fully proportional fall in demand as customers wait for the next service; however, it also points to the disbenefits associated with this approach. The negative perception of the service caused by anticipating frequent long queues could reduce the opportunities to market the service at a higher realised fare.
- 4.9.9 If significantly reducing service levels to maximize loading, it would likely be necessary to implement an advance-sale only approach; this could allow a smaller number of high yield trips to be made. A railway operating under this model would however, only fulfil the direct attraction of (a smaller volume of) tourists and the preservation of the heritage asset while losing a significant proportion of its wider economic benefits. The key role of the railways in distributing the benefits of tourism across the Island would be significantly undermined by turning most trips into return trips on a 'ride' rather than facilitating an additional day of holiday in another location. This in turn would undermine not just the geographic distribution of benefits from the railways but also the scale of benefits but shortening the length of the leisure facility that the service provides. Additionally, the Island's car-free travel offering would be significantly reduced by reducing the timetable of the railways. Use of the railway service by local residents would also be restricted by a less flexible transport service. This would also start to erode the wider economic benefits associated with tourism spend driven by the railway, that exceed the level of subvention required to support the railway.

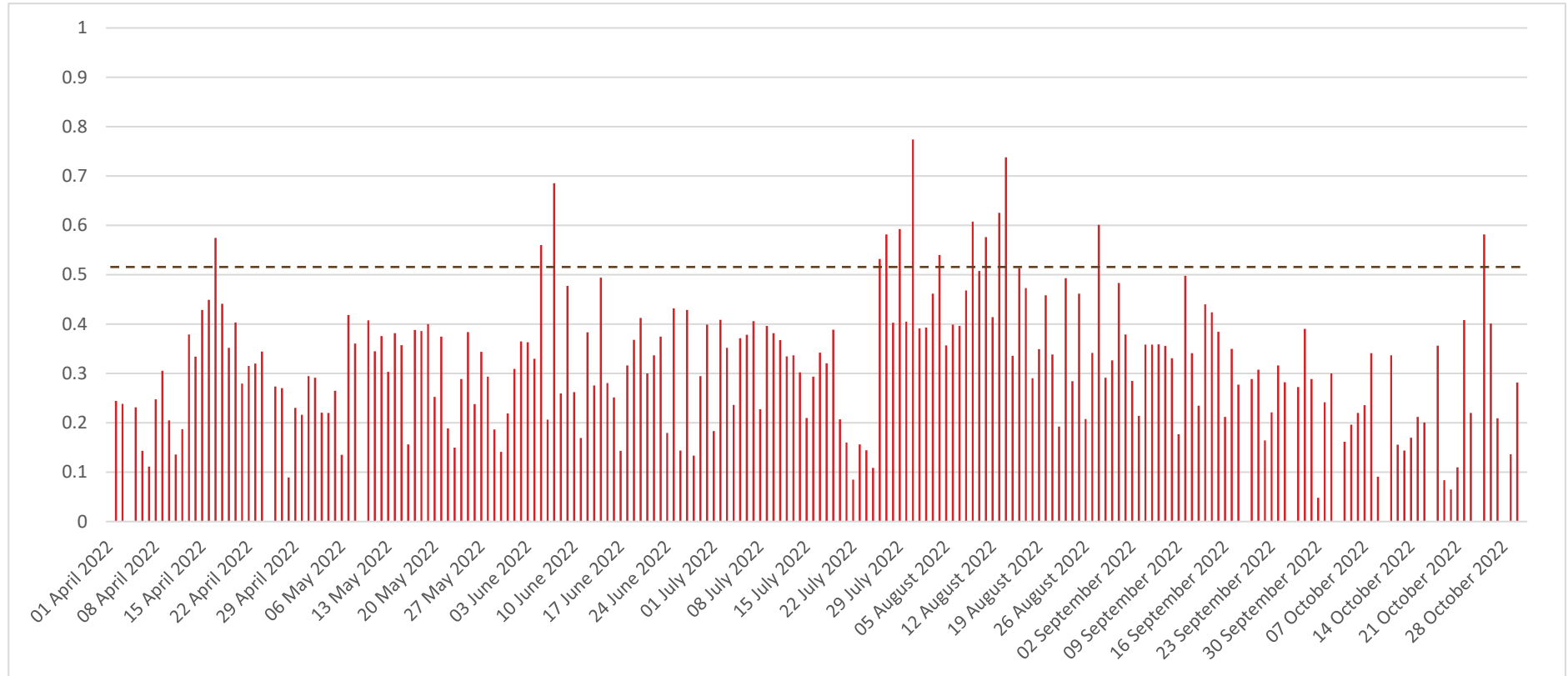


Figure 9. MER Loading Rates (total daily passengers/total daily capacity of services) for Main Season 2022⁸

⁸ The transport festival in late July resulted in many passengers being recorded as event passengers with advanced ticket sales and therefore not captured correctly in passenger counts

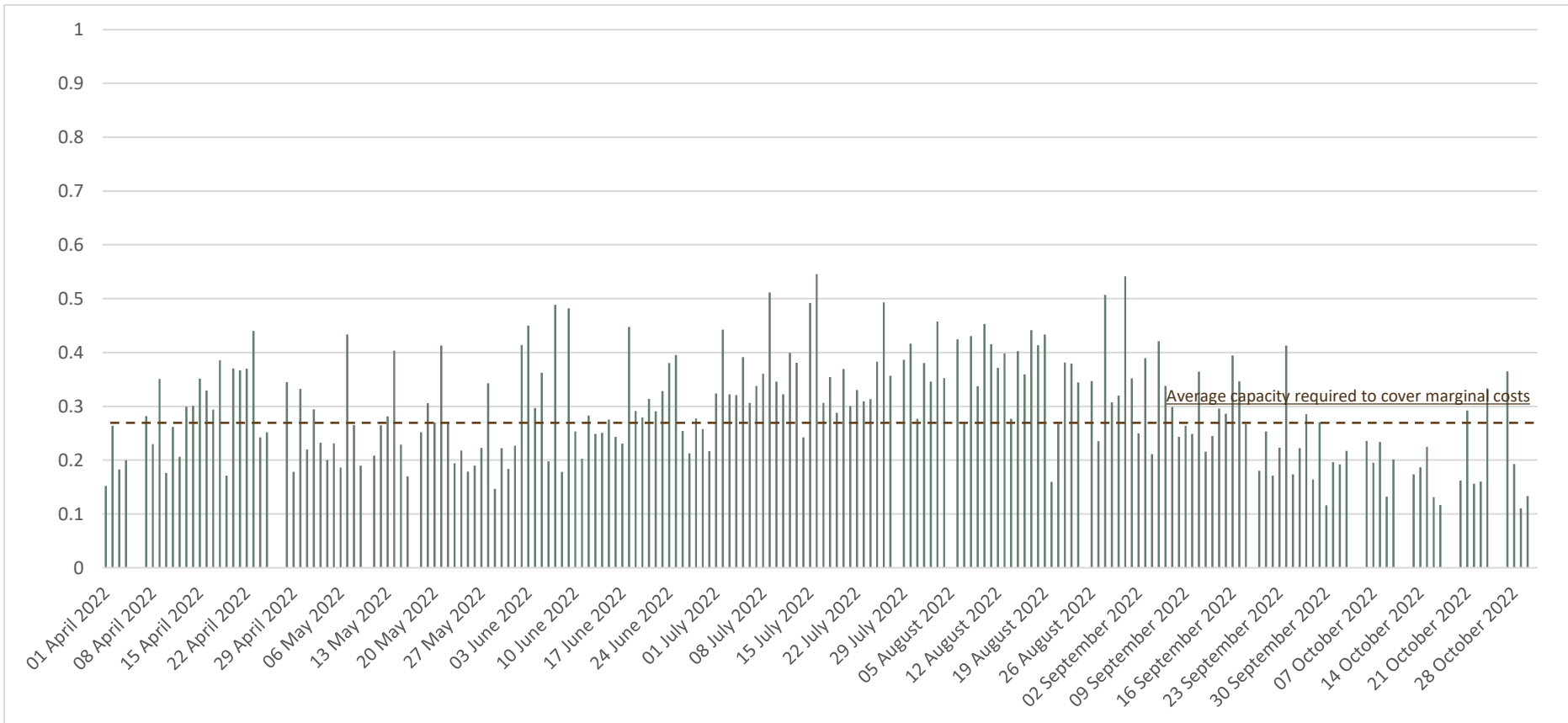


Figure 10. IMR Loading Rates (total daily passengers/total daily capacity of services) for Main Season 2022⁵

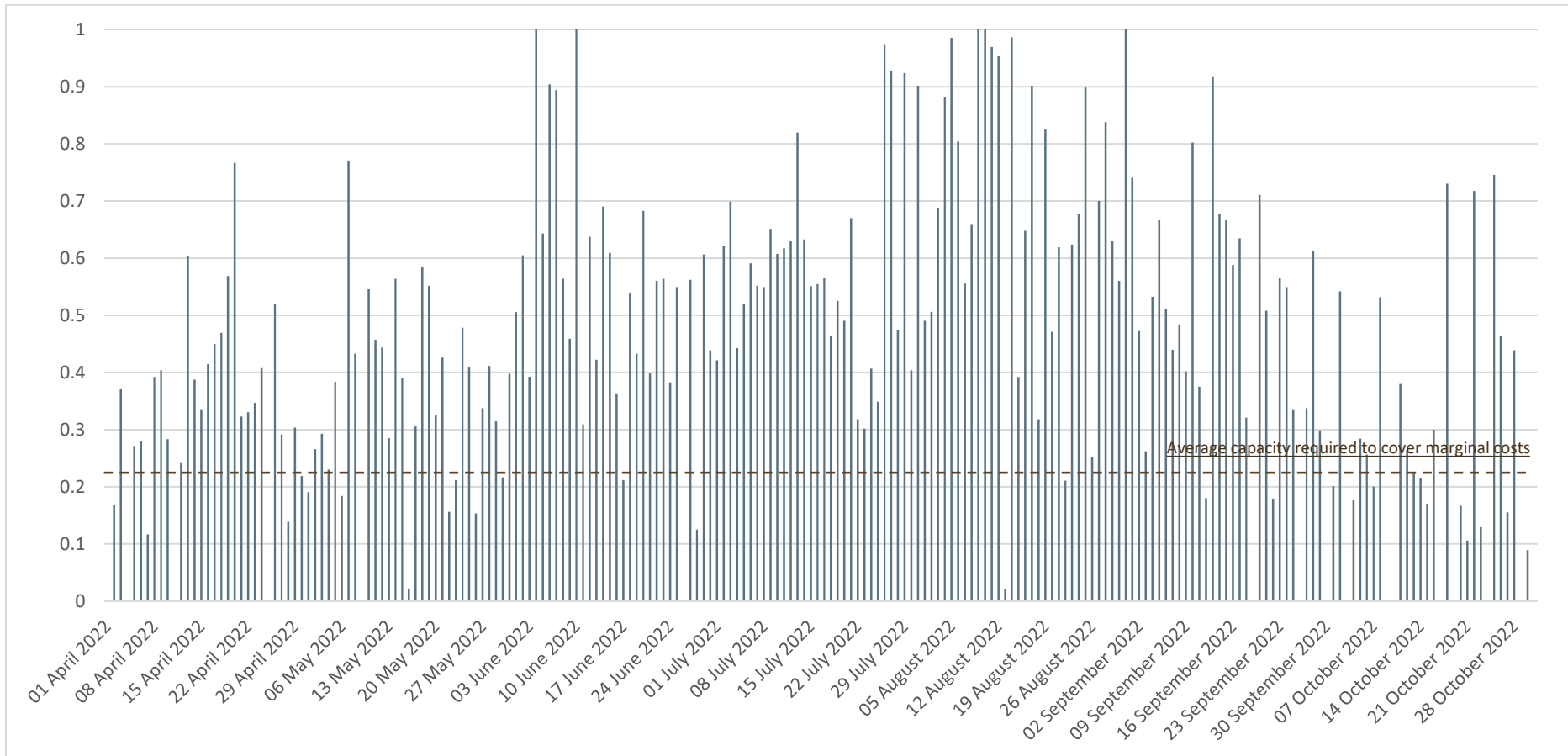


Figure 11. SMR Loading Rates (total daily passengers/total daily capacity of services) for Main Season 2022⁵

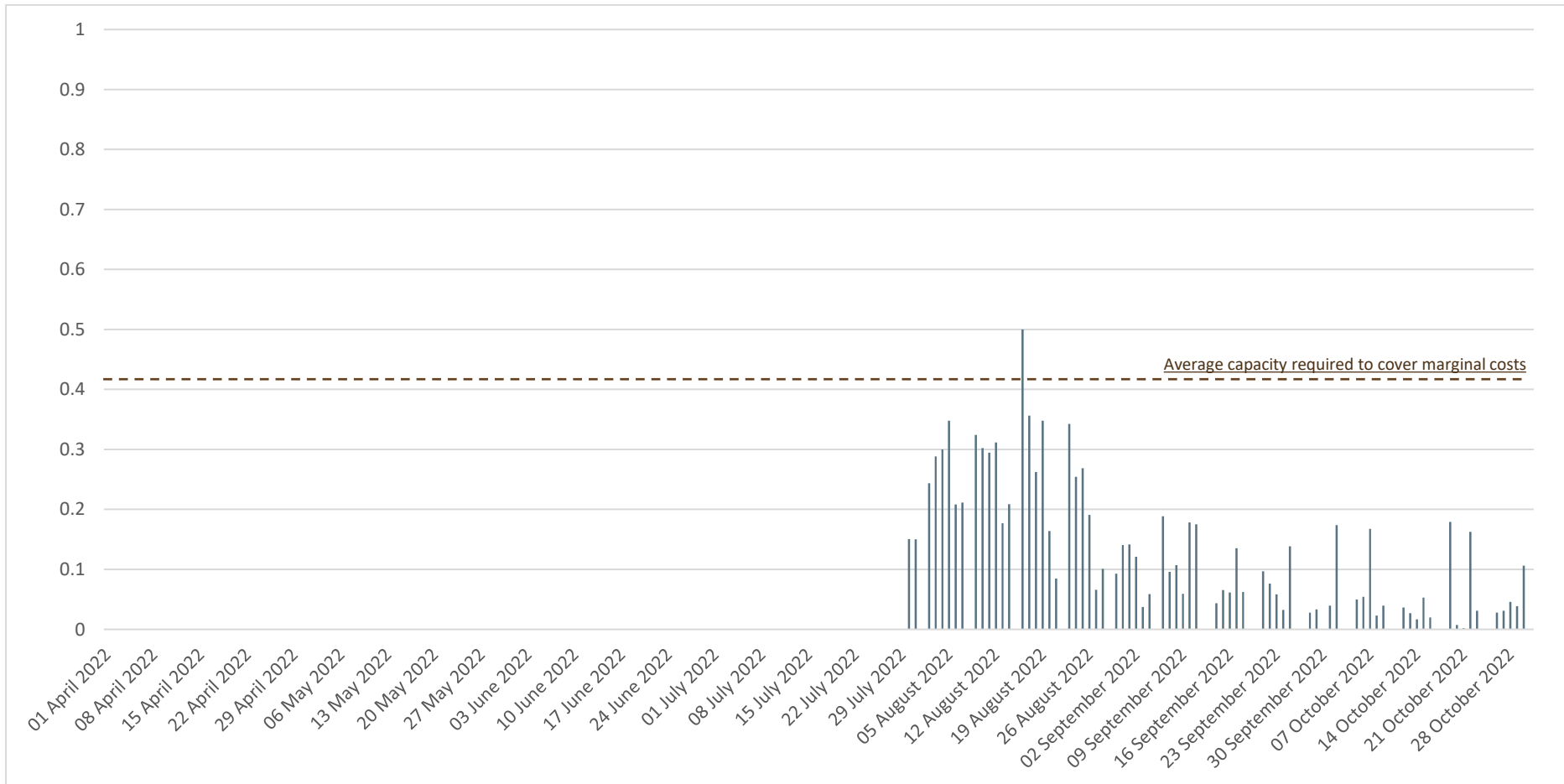


Figure 12. DBHT Loading Rates (total daily passengers/total daily capacity of services) for Main Season 2022⁵

Understanding Ticket Type Contribution at a Daily Timetable Level

- 4.9.10 As described in earlier sections, the railways revenue stems from different sources that vary substantially in their nature; this results in recording of revenue inputs in substantially varying formats such that day-by-day contributions by revenue source cannot be consistently compared. While the railway management has made significant improvements in clearly designating the railway to which revenue belongs, cooperative work with Ticketer and further training of conductors is recommended to give a full picture of the contribution of Go Explore cards vs presold tickets, vs short and longer distance single and return tickets.
- 4.9.11 Despite this limitation, there are several indicators of the contributions of different revenue sources. The variations in yield from ticket price face value between Go Explore and single-railway tickets is one way to understand these contributions indirectly. Another is through analysing the ticket sales where the date of use of tickets is specified: invoiced group ticket sales and private hires.

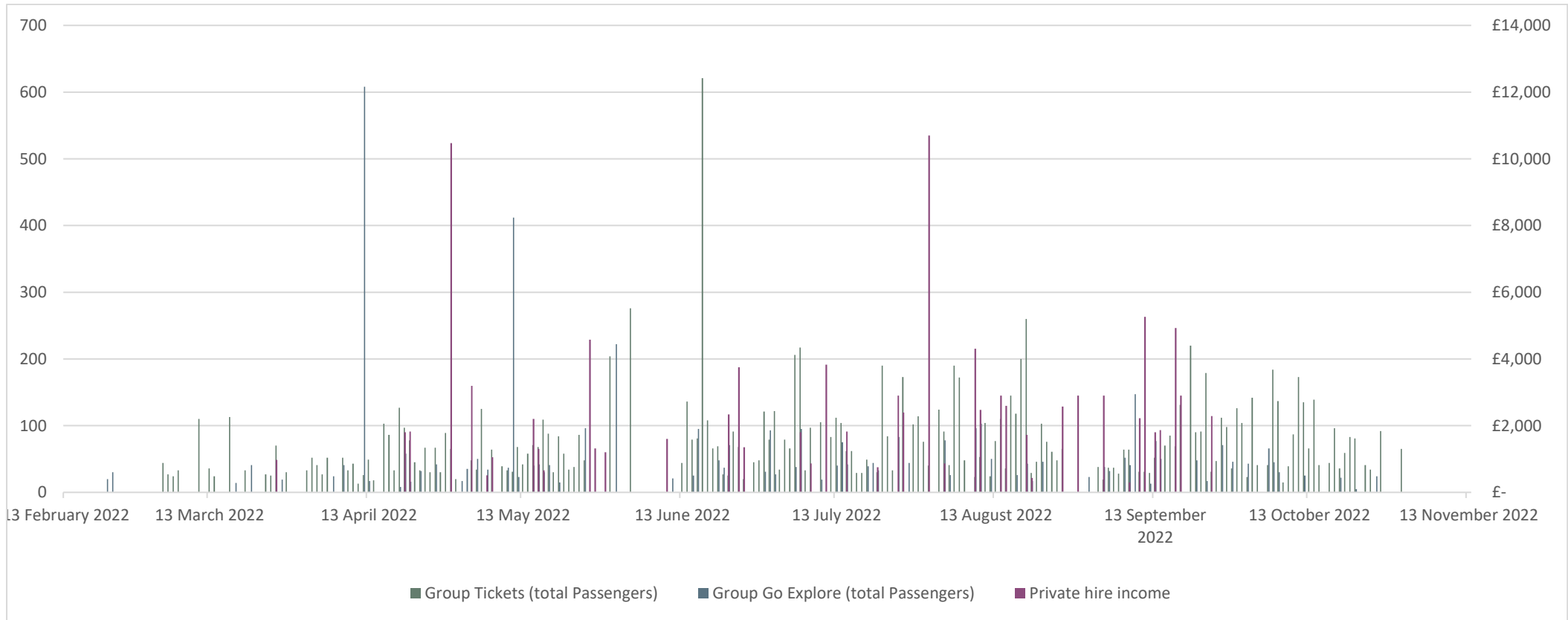


Figure 13. Invoiced Fares by number of tickets and private hire by cost of hire over the Calendar Year 2022

4.9.12 The vast majority of invoiced sales are for group tickets, either specific railway tickets or Go Explore tickets, private hire of a carriage or dining car tickets, of which the last category are not relevant to the question of demand and supply across the calendar year. Tickets are group-booked by cruises, coach tours and on occasion by local organisations for leisure. The effective use of the September and October period to use spare capacity for grouped booked tickets is evident from the higher number of group-booked tickets sold in this period.

4.9.13 A high number of group tickets are still sold during the high season, contributing to the over-capacity services reported. Additionally, group ticket purchasers are likely to make smaller contributions to the wider economy, in the case of cruise ship groups returning to their ships for lunch. However, rail-specific tours that are attracted mainly by the railway and who often commission private hires, have been shown bring large additional spending to the wider Island leisure economy. Private hire prices are adequate to cover the marginal cost of a service.

4.10 The 2023 Season

4.10.1 In 2023, new fares were implemented for point to point rail fares and Go Explore smartcard fares; Table 15 illustrates these changes.

	RETURN ADULT FARE 2022	RETURN ADULT FARE 2023	CPI INFLATION	INCREASE IN REAL TERMS
IMR	£13.40	£17.00	6%	20%
MER	£13.40	£17.00	6%	20%
SMR	£12.00	£16.00	6%	26%
DBHT	£5.00	£5.00	6%	-5%

Table 14. 2023 New Return Fares Compared to 2019 Ticket Prices, Compared in Real Terms

	RETURN ADULT FARE 2022	RETURN ADULT FARE 2023	CPI INFLATION	INCREASE IN REAL TERMS
Go Explore 1 day (75%)	£17.00	£19.00	6%	6%
Go Explore 3 day (75%)	£34.00	£39.00	6%	8%
Go Explore 5 day (75%)	£41.00	£45.00	6%	4%
Go Explore 7 day (75%)	£50.00	£56.00	6%	6%

Table 15. 2023 New Go Explore Fares Compared to 2019 Ticket Prices, Compared in Real Terms (75% refers to Proportion of Rail)

4.10.2 Railway-specific single and return tickets have increased proportionally more than Go Explore tickets. This disparity might be expected to result in excess ticket type switching

to Go Explore tickets. However, the increase in realised average inflation-adjusted yield is 14%, suggesting that excessive switching from railway single and return tickets to Go Explore tickets has not occurred.

- 4.10.3 This increase in ticket prices provides a further test - to what extent do increases in price result in decreases in passenger numbers? While this significant fare increase has been implanted in 2023 railway passenger numbers have not reduced (Table 16).

	2019	2023 (EXTRAPOLATED)	CHANGE
Railways trips (excluding events)	0.37	0.43	+16%

Table 16. Passenger Trips, All Railways (Millions)

- 4.10.4 Significant additional customers in the market could explain why trip numbers could be sustained even at a price where the price elasticity of demand would, other things being equal, result in a reduction of demand. Full visitor numbers for 2023 are not yet available to compare. However 2023 is the first full year since 2019 where there has been no COVID-19 impact and older visitors may have recovered their confidence travel, a market which is important to the Island's tourist economy in its current form.

4.11 Demand for the DBHT

- 4.11.1 The DBHT operated reduced services in 2019 before ending the season early to facilitate the promenade scheme; it reopened in July 2022 but with a reduced route that terminated half way around the bay and severed the link with the sea terminal. These periods of low and no- service impact analysis of financial performance over time.
- 4.11.2 The 2022/23 annual financial data suggested that the shortening of the route had a significantly negative impact on passenger demand. However, 2023/24 passenger numbers suggest instead that this was a lagged return of demand, with the month-on month performance of the DBHT showing passenger numbers more than doubling from 2019.

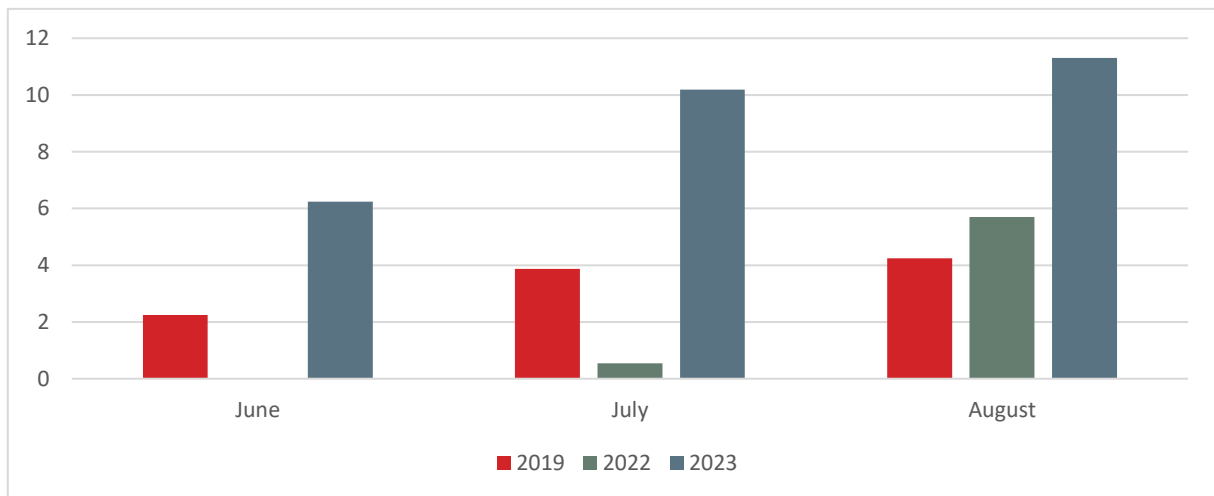


Figure 14. Passenger Trips (SAR Data) on the Douglas Bay Horse Tram ('000)⁹

4.11.3 Even with the late start to the season and the newly reduced route length, the 2022/23 estimated net loss of £291,000 is still smaller in real terms than the published losses of the DBHT when still under private ownership in 2015 (£329,000).

4.12 Conclusions

4.12.1 There are a number of conclusion that emerge from the financial analysis which have an impact on considering how the railways should develop going forward.

4.12.2 For the railways as a whole, total revenue, costs and resulting subvention varies little between 2018/19 and 2022/23; this is true for each railway, as well as at the network level. This demonstrates that the railway management in control of costs.

4.12.3 70% of operating costs are staff costs. Our review has seen evidence that staff costs are carefully managed to minimise overtime costs through rostering of staff according to contract terms; This control is evident in the real term decrease in staff cost spending between 2018/19 and 2022/23. Further substantial reduction in real staff costs is unlikely unless levels of service are reduced, given the very limited options to replace paid staff with volunteers.

4.12.4 Over 85% of revenue is from ticket sales. Ticket price increases have been implemented with no discernible negative impact on passenger trips. Go Explore tickets allow more journeys for a similar price to return trips giving a low passenger trip yield; their lower increase this year compared to rail-specific return tickets exacerbate this.

4.12.5 Only 19% of 2022/23 revenue was from events. Event yield is higher than scheduled fares yield. External company's provision of catering limits the opportunity to maximise event passenger yield. Rent and other ancillary income makes a very small contribution to revenue.

⁹ Improved ticket monitoring through the Ticketer system may exaggerate the increases in later years compared to 2019

- 4.12.6 The load rates required to operate a marginal service profitably are reasonable however the average passengers per service required to cover all costs and overheads of the railway operation are very high. Timetables have already been adjusted to remove low occupancy services and queueing is used to distribute demand away from full services and preserve high occupancy services.
- 4.12.7 DBHT demand in 2022/23 is likely to be affected by the only recent reopening of the service.
- 4.12.8 Good cost control measures have been implemented; further substantial cost savings given the current level of service are unlikely. If policy requires a reduction in subvention then yield maximisation options need to be followed by increasing ticket prices, in particular bringing Go Explore tickets into line with rail-only tickets and increasing the number of events and the proportion of event revenue falling to the railway.

5. THE ECONOMIC CONTRIBUTION OF THE RAILWAYS

- 5.1.1 Whilst the Isle of Man Railways do require both revenue subvention and capital investment from the public sector, they also have an impact on the economy of the Island, principally through contributing to the attraction of visitors to the Island but also through the direct expenditure of the railway within the local economy.
- 5.1.2 Capturing the true size of the Tourism Economy on the Island is complicated by the way in which tourism is reported in the national accounts. The only discrete item related to tourism is the category “Tourist Accommodation” which represented only 0.54% of the entire income of the Island in 2019/20 (the last year available prior to the COVID-19 pandemic impacting on data). This however masks a more complex picture, as tourism will form part of number of other categories including Transport & Communications, Retail Distribution and Catering & Entertainment which together represent 6% of the Island’s Gross Domestic Product (GDP).
- 5.1.3 Although forming a low overall proportion of GDP, the tourism economy is capable of supporting a relatively large number of jobs on the Island. Tourism generally is also important as it is capable of addressing the balance of revenue between the Island and abroad, and the amount of spend generated on the Island will exceed the leakage to other economies. This is in contrast to the overall position on the Island, where in 2019/20 there was a deficit of £277m in the relationship between income from abroad and that leaving the Island.
- 5.1.4 The figure below summarises the circular pattern of wider economic impacts associated with tourism and the railways on the Island.

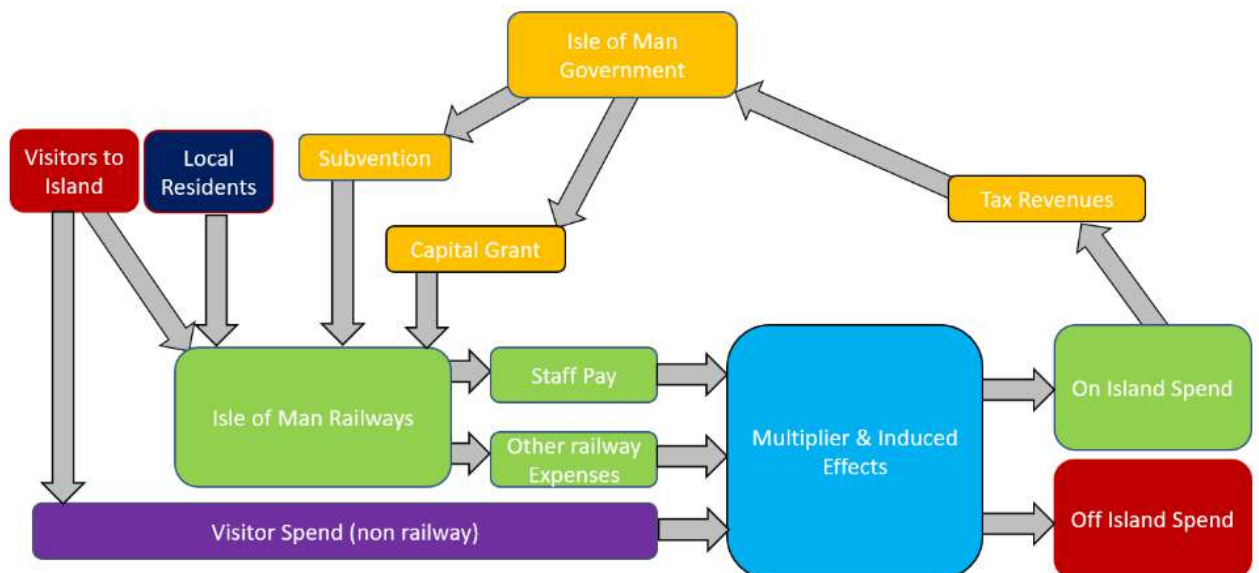


Figure 15. Summary of the Railways Key Economic Relationships

5.1.5 The key components of the above relationship are:

- **The Isle of Man Government** – the government provides support for the railways through revenue subvention and capital grants, both of which have been required to ensure the railway can operate. Some of this spend and investment is ultimately recovered through taxation.
- **Tourists** – Visitors to the Island both directly support the railway through the farebox, but also contribute to the wider economy through spending on accommodation, catering and other attractions.
- **Residents** – Local residents also contribute to the railways through the farebox as part of their own usage. Whilst this supports the railways it could be argued that this spending would be transferred to other parts of the Island’s economy where the railways not in existence.
- **The Railway** – Whilst the railway acts as an attractor of visitors, it as an economic entity in its own right. Its income from farebox and subvention supports over 100 employees based on the Island, all of whom will spend on the Island. The Railway also has its own supply chain, a substantial proportion of which will be on the Island.
- **Economic Effects** - Spend in the economy generates a series of multiplier impacts, as spending spreads through the economy. Ultimately this spending is captured either by local residents, the government through taxation or it leaks out the of the economy.

5.1.6 In the sections below, we attempt to capture the value of the economic contribution that the railways make. We also estimate using non-use value aspects of the social value of the railway to the Island as a whole.

5.1.7 The Isle of Man railways are unique compared to their peers in the UK as with a very large proportion of the passenger coming from off the Island and as such they are a genuine generator of income to the Island, whereas it can be argued that UK heritage railways (which rely heavily on UK resident visitors) largely transfer economic value between different regions rather than bringing in new income.

5.2 The Impact of Visitor Spend

5.2.1 Using data from the Isle of Man visitor survey, it has been possible to derive estimates of the amount of money spent by visitors to the Island. Using this information along with the results of survey questions on the use of the railways by visitors to the Island, we have been able to derive estimates of the economic value of visitor spending. The visitor spending considered here is net of spending on the railway itself, the impact of which we model separately below.

5.2.2 There are three categories of effect as a result of the way in which spend filters through the economy. These effects are:

- **Direct Impact** – The spending by a visitor directly on the Island either through accommodation, other hospitality such as catering or retail. By definition all of this spend is retained on the Island and represents income from off the Island.
- **Indirect Impact** – This covers the impact of additional spending in the supply chain of those businesses where direct spend has taken place. A significant proportion of

this spend will be retained on the Island, but inevitably some will be lost to off-Island economies.

- Induced Impact - As direct and indirect spend increases this increases wages and also the number of jobs in the economy, this in turn has the effect of increasing consumer spending through households.

5.2.3 Visit Isle of Man (VIoM) surveys for Q2 and Q3 provided detailed data on the characteristics of visitors to the Island, including the amount spent and the activities undertaken. The data has allowed the expenditure associated with rail users and non-rail users to be identified.

5.2.4 Critical to understanding the value of the railways in supporting the tourism economy is an assumption on how tourists would respond if the railways were not available.

5.2.5 The assumptions we have made are as follows:

- That passengers who are rail users will either:
 - No longer visit the Island
 - Continue to visit the Island but change the expenditure and duration of their visits to match the characteristics of non-rail users
- Where visitors no longer visit the Island they would be replaced by alternative visitors

5.2.6 The above represents a very robust assumption as it does not allow for a net reduction in visitors to the Island, and therefore assumes that the Island is able offset any loss, particularly in the specialist railway tourism market, with an increase in visitors in other areas.

5.2.7 Our analysis has excluded those visitors to the Island who are visiting friends and relatives, as it assumed that the primary motivation of these passenger is to spend time with their friends/relatives and would therefore continue to visit the Island irrespective of the existence of the railway (or any other tourist attraction). This is a robust assumption and excludes the possibility that visits to friends and family may be of a shorter duration. The results presented therefore could be seen as the lower bound for the wider economic impacts of the railway on tourism when estimated through length of stay.

5.2.8 The table below presents the results of analysis of the VIoM data.

Table 17. Visit Isle of Man Q2 and Q3 Analysis

TOURIST CATEGORY	% VISITORS IN EACH CATEGORY	AVERAGE LENGTH OF STAY (NIGHTS)	AVE SPEND PER PERSON PER DAY (£)
All Tourists	100%	5.63	£100.54
Rail Users	38%	6.32	£100.24
None Rail Users	62%	5.21	£100.72

5.2.9 The table highlights that around 40% of tourists use the railways whilst visiting the Island, and that there is little difference in terms of expenditure between rail and non-rail users. However, there is a notable difference in the length of stay, between rail users and non-rail users. The implication of this is that if the railways did not exist, the average length of stay of visitors would fall from 5.63 nights (which covers both rail and non-rail tourists) to 5.21 nights.

5.2.10 Based on an estimated total of 227,000 tourists for 2023 (which excludes those visiting friends and family) the direct economic impact of tourists is around **£9.6m** per annum.

Indirect & Induced Impacts

5.2.11 The scale of indirect impacts on the Island is closely linked to the level of leakage to other economies. The value of the direct impacts are assumed to go through a number of rounds of spending where a decreasing proportion of the spend is retained on the Island. Previous work in this area has assumed a combined multiplier for visitor spend of 1.25 – based on the level of direct impacts, this gives an indirect and induced impact of **£6.56m**. The value of 1.25 has been taken from the 2011 ECORYS report which notes that “*Standard Isle of Man economic multipliers as used by IOM Treasury typically fall with the range of 1.25-1.30*”.

5.2.12 When the multiplier is applied to the direct impact of £9.6m, the indirect and induced impact is estimated at around **£2.4m** per annum.

5.2.13 The total tourism impact is therefore around **£12m** per annum. As highlighted above this is felt to be a robust assessment of the tourism value of the railways to the Island.

5.3 Economic Impact of Railway Operation

5.3.1 The railway uses its three sources of income (revenue from passengers, revenue subvention and capital grant) to support the expenditure required to operate and maintain the railway. This falls into three categories:

- Staff costs including both permanent and seasonal staff.
- Non-staff operating costs which principally covers maintenance and fuel.
- Capital costs covering renewal of infrastructure and refurbishment of rolling stock.

5.3.2 The first category supports significant indirect effects as staff spend their earnings in the local economy. The non-staff categories are likely to see more leakage out of the Island as some specialist services along with coal will be provided from off-Island sources. The railway does however source materials locally where it can, an example of this being the production of new concrete sleepers on the Island.

5.3.3 The total disposable income associated with staff cost (in the 2022/23 year) was around **£3.26m**. It should be noted that in this context disposable income is income after tax and National Insurance only.

5.3.4 The spending power of this income will be impacted by the effect of inflation, but this would only impact the retention rates described below if there was a significant distortion in the rate of inflation between those goods and services sourced on and off Island. The

Consumer Price Index (CPI) in the Isle of Man has tracked the UK CPI closely during 2023 suggesting this may not be an issue.

- 5.3.5 The estimated total disposable income is around **£2.91m** and this represents the direct impact of the railways staff costs on the local economy. When spent the money generates induced effects. The money is assumed to circulate four times with decreasing levels of retention on the Island. The approach is based on the Ecorys methodology applied in 2011. The table below demonstrates the multiplier effect.

STEP	INPUT	RETENTION RATE	OUTPUT
1	£2,914,334	79%	£2,302,324
2	£2,302,324	5%	£115,116
3	£115,116	2%	£2,302
4	£2,302	0%	£0
TOTAL			£2,419,743

Table 18. Staff Disposable Income Multiplier Impact

- 5.3.6 The total indirect and induced impact of staff costs equals **£0.148m** per annum.

Non-Staff Revenue Costs

- 5.3.7 In addition to staff costs, the railway incurs around £1.6m of other operating costs covering fuel, energy and materials. SYSTRA have reviewed these costs at a disaggregate level and estimate that around 59% of these costs are incurred with businesses on the Island, with the remainder spent directly with off Island businesses. Given the specialist nature of a railway operation with very specific material and maintenance requirements a relatively high level of off Island direct expenditure is to be expected.

- 5.3.8 The direct on Island expenditure totals **£0.92m**. £0.26m is generated through direct and indirect effects.

Capital Costs

- 5.3.9 Capital costs incurred by the railway vary from year to year, although as discussed elsewhere in the report there has been a significant programme of capital expenditure on renewals over the last decade. In the current year, capital expenditure has fallen to £2.25m, and we have used this figure as our input to assessing the wider impacts of capital spend.

- 5.3.10 The level of capital expenditure spent directly on the Island is assumed to be low compared to other categories, at 30%. In practice this figure will vary from year to year, depending on the type of expenditure incurred. For example the renewal of the Strathallan depot (as a conventional building project) might be expected to support

greater direct spend on the Island using local contractors. In contrast, sourcing material for track renewal schemes and the sourcing of materials (and in some case skills) required for rolling stock and locomotive overhauls requires larger amounts of off Island expenditure.

- 5.3.11 The direct impact of capital expenditure is there likely to be around £0.145m per annum. This figure in turn supports around £134k of indirect and induced expenditure.

Summary of Wider Economic Impacts

- 5.3.12 The table below summarises the sources of wider economic impacts.

	DIRECT IMPACTS	INDIRECT & INDUCED	TOTAL
Revenue Expenditure - Non Staff Costs	£0.92m	£0.32m	£1.25m
Revenue Expenditure- Staff Costs	£2.91m	£0.15m	£3.06m
Capital Expenditure	£0.68m	£0.11m	£0.82m
Estimated Tourism Impact	£9.62m	£2.41m	£12.03m
TOTAL	£14.13m	£3.02m	£17.16m

Table 19. Wider Economic Impacts Summary

- 5.3.13 It can be seen that the railways support substantial economic impacts, totalling around £17m per annum. 70% of these benefits are derived from visitors to the Island. With a total revenue subvention of around **£3.7m**, this implies that there is an annual Benefit Cost Ratio (BCR) of from visitors alone of around 3.25, which increases to 4.64 when expenditure associated with the railway is included.
- 5.3.14 If capital expenditure is added to subvention, then the BCR (based on 2023/24 capital spending of £2.25m) is 2.88, implying that the railway generates £2.88 for every £1 of government spending on the network. Based on the wage per employee on the Island the railway can be seen to support 241 full time jobs associated with the tourism sector, though in practice the figure will be higher as the sector supported will typically see lower levels of GDP per employee.

5.4 Monetising Social Value

- 5.4.1 The railways have a special place within the wider cultural heritage of the Island and are valued by visitors and residents alike. Monetising these values is an under-researched area, however an approach to addressing this exists through the application of option and non-use values. Option values relate to the value an individual or household places on the insurance value of a transport mode, for example people who routinely use car as their main mode may hold a value on a bus service for occasions when their car is unavailable. Non-use values represent the value that an individual or household places on the continued existence of a service (i.e. transport facility), regardless of any possibility of

future use. This covers altruistic reasons, reasons of indirect use or because it has some existence, bequest or intrinsic value¹⁰.

- 5.4.2 Specific evidence around heritage assets are limited; indeed a recent review conducted by the UK government “Valuing Culture and Heritage Capital: A framework towards informing decision making”, did not quantify values. Values do however exist in the transport sector. In the this context Options Values may not be appropriate as much of the rail network on the Island is duplicated by bus services which operate year round, often at higher frequencies. However non-use values are applicable to the railway, whilst it is acknowledged that many residents do use the railways as a leisure activity, this may be infrequent. The UK Department for Transport specifies a non-use value in its TAG appraisal guidance of £140 per household per annum at 2023 prices. The Isle of Man has 37,220 households (Source: 2021 Census), giving an upper value of £5.2m per annum, a figure approaching the combined value of subvention and capital spend for the 2022/23 financial year.

¹⁰ Source: DfT TAG Unit A4-1 Social Appraisal

6. BENCHMARKING WITH OTHER RAILWAYS

6.1.1 To understand the performance of the railways on the Island, it is useful to undertake a benchmarking exercise to compare the railways with other similar operations. To this end we have undertaken an analysis which compares the Island's railways with a range of UK heritage railways.

6.1.2 In undertaking this benchmarking process it should be noted that the context of the Island's railways are very different from the context of most heritage railways. The key differences are that:

- UK heritage railways typically (but not exclusively) rely heavily on volunteers to fulfil the majority of roles, which reduces costs. In contrast the Island's heritage railways operate entirely with paid staff.
- UK heritage railways receive no revenue support from the public sector, therefore all operating costs have to be covered from farebox and ancillary income, donations and legacies.
- UK heritage railways have no consistent structure for supporting capital investment in renewals and enhancements. Funding comes from a mixture of the railways' own resources, donations and legacies, and grant funding from Heritage Lottery Fund, or government funds such as the Levelling Up Fund. Such grant funding is almost always subject to competitive bidding.
- UK heritage railways are typically only single routes rather than a network, meaning there is less scope for sharing management and other central costs between routes or services.

6.2 Heritage Railways in the UK

6.2.1 The heritage railway movement in the UK has existed for around 70 years. The Heritage Railway Association represents 300 members and heritage railways attract more than 13m passenger per annum and are quoted as generating over £600m for the UK economy.

6.2.2 Heritage railways vary in size and scale. There are number of large scale operations such as the North Yorkshire Moors Railway or the Severn Valley Railway, which exceed 15 miles in length and represent major tourist attractions within their area. These railways typically have long operating seasons and operate every day during their core season, and in this sense are analogous to railways on the Isle of Man. Due to the scale of these operations management, administrative and some engineering functions have often been professionalised, though train operations and station staff often remain as voluntary roles.

6.2.3 In contrast other railways operate at a smaller scale with fewer operating days and often an entirely voluntary management and operational staff.

6.2.4 Most railways of all sizes derive a significant proportion of their revenue from special events, such as Thomas weekend, various types of Christmas service and gala weekends. As well as attracting large volumes of passengers, these events often command premium prices, and in a number of cases effectively subsidise the railways for the rest of the year.

6.2.5 The move towards paid staff roles at some railways has typically been driven by the demand for the railway being sufficient to support longer seasons and weekday operation, which in turn requires an enlarged staff/volunteer headcount but also incurs greater management requirements which go beyond the typical commitment volunteers can make.

6.2.6 In very few cases has it been possible to move to an entirely commercial model with paid staff filling all roles, although two primary examples of this are the Paignton & Dartmouth Railway in Devon and Ravenglass & Eskdale Railway in Cumbria. Both of these railways are located close to or within major tourism centres (Torbay and the Lake District respectively), which mean that the railways can attract large numbers of visitors across their seasons (Spring to Autumn) and across all days of the week. Whilst the Paignton and Dartmouth Railway is located in a well populated area, the Ravenglass and Eskdale line is in a remote area with a very limited population in the surrounding area, which would make recruitment of volunteers very challenging.

6.3 Organisational Structure of Heritage Railways

6.3.1 The majority of heritage railways are managed in some form as a charity, bringing the benefits of not having to pay tax on income or profits, meaning that all income is available to support the railways charitable objectives.

6.3.2 Some railways maintain a simple structure with the charitable trust operating all services and holding all assets. Many have however developed more complex structures, a typical example being one where a commercial company is responsible for trading and the operation of services. This approach is taken for three main reasons:

- There are limits on the scale of trading that charities can undertake if it deviates from the charity's stated objectives.
- There are limits on the remuneration that charitable trustees can receive. Where the scale of an operation is such that paid staff are required to manage the service then a commercial company provides a mechanism to provide remuneration.
- Separating trading activities from a charity allows the assets of the railway (both infrastructure and rolling stock) to be vested in the charity and in effect leased to the trading company. This minimises the level of risk that the assets are exposed to, as if the trading company became insolvent the assets would not have to be disposed of to pay creditors. If the charity were also a trading company this may not be the case.

6.3.3 Some railways have more complex structures where assets are vested with multiple trusts, often reflecting the way in which the railway has developed or representing the specific interests of different enthusiast groups.

6.3.4 Whilst many railways own their infrastructure outright, a significant number lease their infrastructure (typically for a notional sum), often from a local authority. This often reflects the historic development of a railway, with local authorities in the past being able to support the purchase of a railway from the previous operator (usually British Railways). Examples of railways in this position include the East Lancashire Railway and West Somerset Railway. One of the advantages to the railway of this approach has been that the risk associated with infrastructure management has been passed to local authorities

who often have the resources and experience required to manage infrastructure. Where local authorities have seen heritage railways as an economic benefit they have provided investment in structures where required, and this has sometimes been achieved by setting up ring fenced funds when the infrastructure was purchased. The benefits of this arrangement have dissipated over time especially as funding for local government has reduced over the last 10 years, with available funding and resources being targeted at essential activities.

6.4 The Challenges and Successes of Heritage Railway Operation

- 6.4.1 Before presenting the more detailed results of the benchmarking work it is useful to consider the ongoing challenges and successes associated with heritage railways in the UK. Much of what follows is based on the current position following the COVID-19 pandemic. The pandemic has had a very mixed effect on heritage railways, with some railways being able to mitigate the worst of the impacts whilst others have struggled.
- 6.4.2 A good example of an iconic heritage railway that is currently in a stable position is the Keighley & Worth Valley Railway. This route, which operates in West Yorkshire on the edge of a major conurbation, has been established for over 60 years. The railway serves a number of markets, appealing to both the general public and enthusiasts. It operates on weekends throughout the year and weekdays in summer, but like many railways it operates a number of events that generate a large proportion of revenue.
- 6.4.3 The railway follows a traditional operating model with a limited number of paid staff, predominantly in management and administrative roles and a large number of volunteers (around 700). The railway has been fortunate in its recovery from the pandemic, with revenue exceeding pre-COVID levels and a total annual income of around £2.5m per annum¹¹. Whilst the costs of operating the railway have increased as a result of inflation (with fuel costs being a particular issue), the railway has achieved a surplus of around £100k. Critically, however, this could not have been achieved if the paid staff headcount has been much higher than the current total and the positive result was heavily dependent on the work of volunteers. In certain respects, the railway has also been helped by its geography as the route is only 5 miles long which constrains the operating costs of the route compared to other railways.
- 6.4.4 The route is however is not without its challenges. In 2020, the railway delivered a bridge replacement scheme for which it required £150,000. This figure was lower than it might have been as it relied on volunteers to provide much of the input to the scheme. Funding for structures is an ongoing issue for many heritage railways. Structures which are typically in excess of 60 years old and in many cases date from the nineteenth century require significant maintenance and renewal funding. The railway has recently had to again undertake fundraising for another bridge scheme for which it has been successful in receiving a grant for £1m from the UK Government's Community Ownership Fund.
- 6.4.5 Many railways have not enjoyed such a positive route out of the pandemic, and a number now face financial difficulties, with a notable example being the Severn Valley Railway which operates over 16 miles between Kidderminster and Bridgnorth in Worcestershire. As well as having a substantial infrastructure to maintain and higher operating costs due

¹¹ Source: Unaudited 2022 financial result reported in the railways "Push & Pull" magazine

to the length of the route, the railway has until recently had a comparatively large number of paid staff. As a result of revenue lost during the pandemic and increased costs since then, the railways has had to launch a “Survival Fund”. This fund was launched in April 2023 with the aim of raising £1.5m, without which the railways own publicity suggests the railway may not survive into 2023. In early September 2023 the fund had raised £415k. Whilst the exact reasons for the railways financial difficulties are not clear (beyond the impact of the pandemic and inflation), the need for such a fund suggests that the railways finances are not stable. This in turn will act a distraction for the management of the railway and may well have the effect of lowering volunteer morale, which in turn may make the railway more challenging to operate if volunteers leave or reduce their input. The railway is estimated to have around 500 active volunteers and as with the Keighley & Worth Valley, can draw on a large urban conurbation for support.

- 6.4.6 These two railways demonstrate the variability in the financial sustainability of heritage railways and also highlight that although many have successfully operated for many decades they can be susceptible to financial shocks (the COVID-19 pandemic being an extreme example), which have direct and rapid effects with no safety nets in place.

6.5 Benchmarking

- 6.5.1 Through publicly available access to accounts held on the UK Companies House website and UK Charity Commissioners returns, it has been possible to draw together information on benchmarking for a sample of railways. The sample has in part been driven by the transparency of information available in accounts but has tried to include a cross section of types of railway.

- 6.5.2 Specific areas of interest within the benchmarking include:

- Use of volunteers and volunteer catchments.
- Employee numbers.
- Staff costs as a function of output.
- Fares.
- Visitor numbers.

6.6 Volunteers

- 6.6.1 As highlighted above, the key difference between the Isle of Man railways and the majority of other heritage railways is the use of paid staff rather than volunteers. The terms of reference for this study ask for a review to be made of the case for greater volunteer input to the railways. In this section we review the use of volunteers on other railways and whether this can be translated successfully to the Island.

- 6.6.2 Based on a range of sources, we have drawn together information on volunteering for 16 railways. The choice of railways has in part been driven by the availability of information, but does provide a reasonable cross section of routes by length and location. Understanding the viability of volunteer operation for a railway requires an understanding of the number of volunteers that are likely to be available to the railway.

- 6.6.3 A key factor that will drive volunteering at a particular railway is the population catchment around that railway. In principle, those railways with a large population around them will

be able to draw on a larger number individuals within their catchment. It is acknowledged that in the case of heritage railways the very specific interests of some individuals will mean that they will travel a considerable distance from their home to volunteer at a railway, however in general it can be assumed that participation at a particular railway will decline with distance due to the time and cost penalty of accessing the railway

6.6.4 In the table below we present for 16 railways the number of volunteers at each railway, the catchment population within 30km radius of the railway, and the equivalent number of volunteers when scaled to the population to the Isle of Man, if it is assumed that all volunteers came from within that catchment.

RAILWAY	NO. VOLUNTEERS	30KM POPULATION (M)	VOLUNTEERS SCALED TO IOM
Bluebell	700	2.88	20
East Lancashire	777	6.96	9
Keighley and Worth Valley	700	4.58	13
Kent and East Sussex	550	1.40	33
Llangollen	347	0.69	43
Watercress Line	450	2.34	16
Mid Norfolk	397	1.06	32
North Yorkshire Moors	1,147	0.33	290
Severn Valley	500	4.10	10
South Devon	600	1.07	47
Swanage	450	1.28	30
Welshpool and Llanfair Light	250	0.31	67
Wensleydale	250	0.69	31
West Somerset	800	0.57	118
Isle of Wight	400	2.36	14
Ffestiniog and Welsh Highland	1030	0.28	308
AVERAGE	584	1.93	25

Table 20. Volunteers and Population Catchments

6.6.5 The figure below presents volunteer participation at the above the railways. This is a measure of the number of volunteers as a proportion of the catchment population.

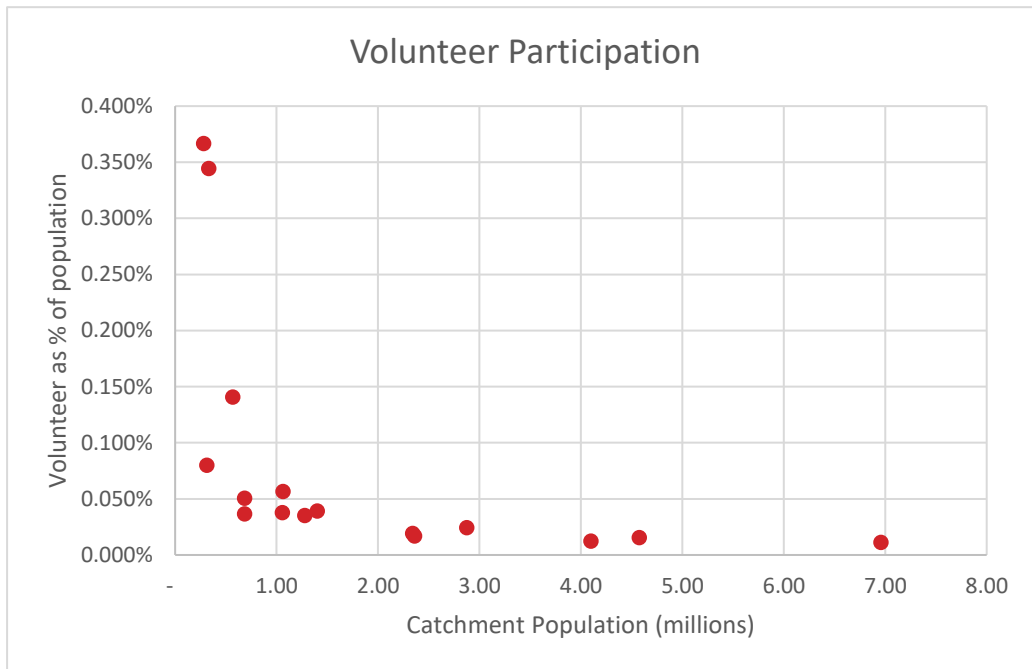


Figure 16. Volunteers as % of Catchment Population

6.6.6 There are a number of features that emerge from the table and graph:

- All of the railways examined rely on a large volunteer workforce with the lowest numbers still being in excess of 200. In some cases volunteer numbers exceed 1,000. It should be noted that it is not possible to identify how active each volunteer is, many may only complete a small number of hours each year.
- On many railways there may be roles filled by volunteers that do not exist on the Isle of Man railways, for example around catering, retail or enhanced levels of station facilities.
- All of the railways, even those in isolated rural areas have larger population catchments than the total population of the Isle of Man.
- Volunteer participation levels are around or below 0.05% of the population for 12 out of the 16 railways. This figure is consistent irrespective of catchment population size.

6.6.7 The most important feature of the analysis is the volunteer participation figures, and how these translate to the Isle of Man. It is clear that participation rates typically do not exceed 0.05% of the population. The rate appears to decrease slightly as population catchment grows, though this may in part be a function of overlaps in catchment between different railways. There are three railways that are notable outliers, below are suggested reasons for these outliers:

- **Ffestiniog & Welsh Highland:** This railway, being located in a remote part of Wales, has since its inception relied on large number of volunteers from outside of the area. The railway has fostered a strong culture around this and provides facilities for its volunteers to stay locally when working on the railway. The railway also has around 100 paid staff, who are likely to fill the majority of operational and engineering roles.

- **North Yorkshire Moors Railway (NYMR):** The methodology deployed capped the population calculation at a 30km radius. Although the population within 30km of the railway is only around 300,000, a larger population in Teesside and York sits just outside the modelled catchment, and the railway will draw heavily from this area. The NYMR also has more than 100 paid staff.
- **West Somerset Railway:** As with the NYMR, the West Somerset Railway a large population catchment sits beyond the 30km boundary, with access to Exeter to the south and Bristol to the north. The greater distance is offset by reasonably good connectivity to these catchments by road.

6.6.8 The scaling of participation rates to the population of the Isle of Man is relevant to understanding if transferring any part of the Isle of Man railway operation to voluntary operation is viable. When participation rates at the 16 railways are averaged (and therefore including outliers described above) the number of volunteers that the Island would support would be around 25. If the three outlier railways are excluded this volunteer numbers sit in the range of between 9 and 67 volunteers.

6.6.9 Compared to a total headcount of 106 FTE on the Isle of Man railways, this would suggest that volunteers could only meet a small proportion of the staffing requirement of the railway (as demonstrated further below). It should also be noted that the Island already provides opportunities for those who wish to volunteer on railways through the activities of the Groudle Glen Railway, the Laxey Mine Railway, the Isle of Man Steam Railway Supporters Association and the Manx Electric Railway Society. The active volunteers in these organisations will arguably absorb a significant proportion of the available volunteer labour force.

6.6.10 We have also reviewed the scale of voluntary operation that might be possible based on this level of volunteering. A report by the National Council of Voluntary Organisations (NCVO), titled “Time well spent: A national survey on the volunteer experience¹²”, provides evidence on the amount of time volunteers give to their chosen activity. This showed that for those who volunteer they gave a median of 8 hours per month and mean value of 13.6 hours per month. Annualising these figures gives a total of 96 hours and 163.2 hours respectively.

6.6.11 Using the most optimistic scenario of 67 volunteers and 163.2 hours, the resident population could contribute a maximum of 10,934 hours per annum. This level of volunteering, assuming that it were possible to roster volunteers flexibly enough to cover all facets of the current timetable would be broadly enough to provide drivers and conductors for the current MER timetable, but provide no cover for any other railway, and make no contribution to fleet or infrastructure maintenance. This however represents a very optimistic scenario.

6.6.12 In a more realistic scenario where only 25 volunteers were available each working 163.2 hours per year only 4,080 volunteer hours would be available, which would cover less than half of the staffing requirements of the current MER timetable.

6.6.13 The above is based on two key assumptions:

¹² <https://www.ncvo.org.uk/news-and-insights/news-index/time-well-spent-national-survey-volunteer-experience/volunteer-participation/#/>

- That volunteers could be rostered with complete flexibility to meet the requirements of the timetable.
- That all volunteers were able to meet the requirements of safety critical roles.

6.6.14 It is likely that the figure of 25 would see some attrition when converted into safety critical roles, meaning that even fewer hours could be provided in operational roles.

6.6.15 An alternative way of considering this is that the total available resource from 67 volunteers giving 10,934 hours would be able cover shifts to allow all the railways to operate on a total of 37 days of the year. This compare to over 210 days of operation for the IMR, SMR and MER and 168 days of operations for the DBHT in the current timetable. Volunteers could therefore support less than 20% of all timetabled operations.

6.6.16 Similarly it is unlikely that volunteers could be rostered as flexibly required; indeed, the railway already has issues with the rostering of casual paid staff. Additionally there is a real risk that volunteers would be abstracted from the Groudle Glen Railway and Laxey Mine Railway, which may impact on the viability of that railway.

6.6.17 The case for using volunteers from off the Island is also poor. There is little incentive for anyone other than the more devoted enthusiasts to volunteer on the IoM railways when similar opportunities are available in the UK which do not incur the need for significant travel and accommodation costs. The management and supervision of such staff especially in relation to maintaining competency in safety critical roles would also be challenging.

6.6.18 This suggests that there is little opportunity to use volunteers in the current roles on the railway. As described elsewhere in the report there may be a wider role for volunteers in enhancing the railway, as opposed to displacing paid staff.

6.7 Fares

6.7.1 Data on fares for 76 different UK heritage railways was obtained to provide the basis for benchmarking fares. The routes covered both narrow gauge and standard gauge services, and the railways included vary in length from less than a mile to the longest heritage routes in the UK such as the North Yorkshire Moors Railway at 24 miles and the Ffestiniog and Welsh Highland railway at nearly 40 miles.

6.7.2 Benchmarking has been undertaken on the basis of the price of an Adult Day Return fare. In some cases, return fares act as Rover tickets which provide greater value by allowing multiple journeys on each day of use. The equivalent produce on the Isle of Man is the Go Explore ticket which exist in multiple forms but allows unlimited travel on all rail service and bus services.

6.7.3 The figure below presents the fare per single track mile for the 76 railways with the equivalent value for the Isle of Man in 2022 and 2023 overlaid.

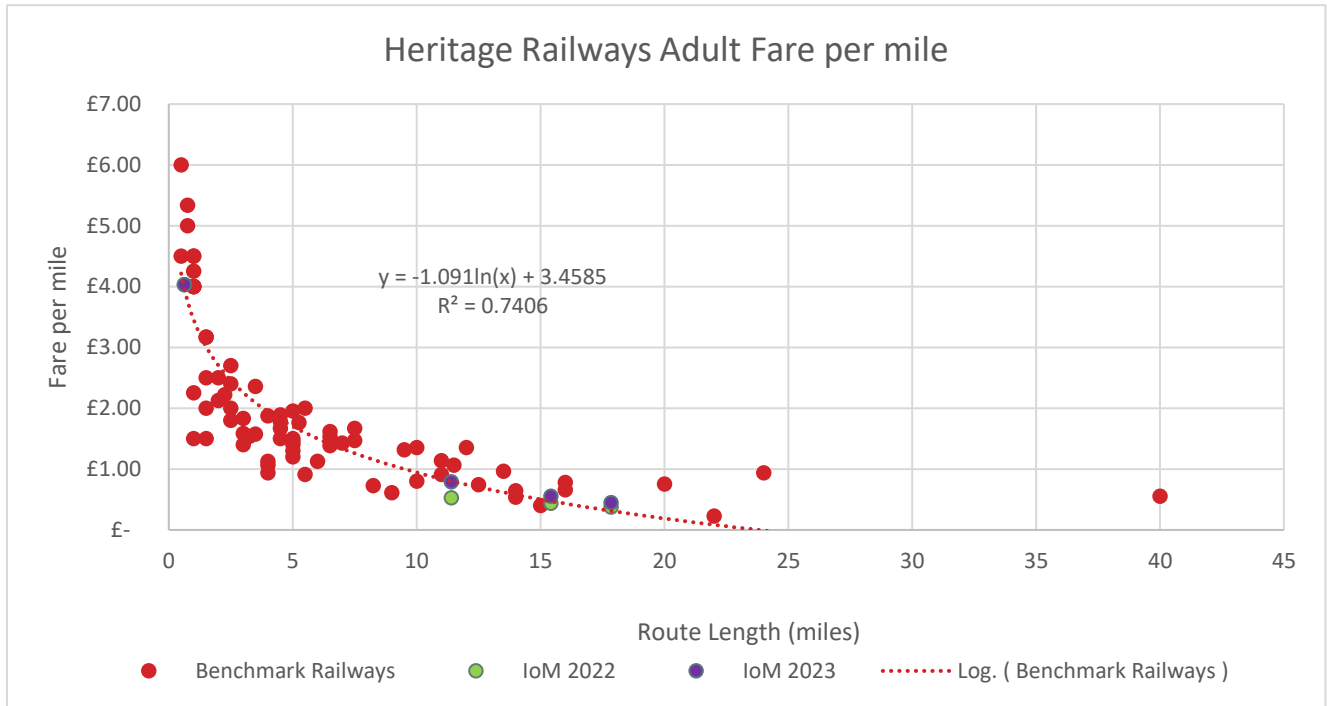


Figure 17. Benchmarked Rail Fares per Mile

- 6.7.4 The graph demonstrates a very clear logarithmic relationship between fare per mile and distance. This is intuitive as railways have high fixed costs and lower variable costs meaning that typically shorter routes incur higher fixed costs which have to be recovered through higher fares per unit of distance.
- 6.7.5 It can however be seen that the rate of reduction in fare per mile does start to reduce, intuitively this would be a function of increased infrastructure costs as distance increases offsetting the economies of scale associated with train operation.
- 6.7.6 The strength of the relationships in the graph are such that it is possible to use an equation derived from the benchmarked railways to estimate the fare per mile the railway should charge to conform to the relationship produced by its peers. The table below presents this compared to the fares in place in 2023 and those in place in 2022.

RAILWAY	MODELLED FARE PER MILE	2023 FARE	% DIFF	2022 FARE	% DIFF
IMR	£0.48	£0.55	16%	£0.43	-9%
MER	£0.32	£0.45	41%	£0.38	18%
SMR	£0.81	£0.79	-2%	£0.53	-35%
DBHT	£3.98	£4.03	1%	£4.03	1%

Table 21. Isle of Man Modelled and Actual Fares per Mile

- 6.7.7 Results have been presented against the fares in place on the IoM in both 2022 and 2023. There has been a substantial increase in fares in 2023 to reflect increased operating costs,

though this has also been part of catch up exercise following only modest increases in recent years.

- 6.7.8 The results show that the IMR and MER are both currently exceeding the forecast fare per mile whilst the SMR and DBHT are very close to the modelled results. In the case of the SMR, the return fare from Douglas to Snaefell has been used as the input as this represent more typically journey on the route.
- 6.7.9 The modelling suggest the fares rises in 2023 were necessary both to address inflation in operating costs but also to under-pricing on the IMR and SMR.
- 6.7.10 These results suggest that the standard point-to-point fares are comparable with equivalent railways operating in the UK. However a significant proportion of passengers use Go-Explore tickets, which provide unlimited access to all railways and bus services during their validity and therefore act as an effective way of promoting more sustainable tourism by public transport.
- 6.7.11 The Go Explore ticket is the equivalent of a one day rover ticket that many heritage railways promote as an increment above a day return ticket (or increasingly instead of a day return). Both Go-Explore and equivalent Rover tickets hold value as a marketing tool by providing additional value to visitors and are a commercial success where additional trips fill otherwise spare capacity, although they can erode revenue by replacing sales of additional tickets or require the provision of additional capacity.
- 6.7.12 It has been shown in the financial performance section that yields from Go Explore tickets are lower than for point to point tickets, signifying an issue which needs to be addressed to help reduce subvention levels.

6.8 Income & Expenditure

- 6.8.1 For a sample of UK heritage railways it has been possible to source data on income and expenditure. This data is sourced from a variety of Charity Commissions returns and company accounts. The subset of railways is limited in part by the way in which individual railways are structured and the way in which they report their costs and income.
- 6.8.2 The figure below presents the distribution of income for a cross section of railways including the Isle of Man Railways. The data covers a mixture of 2018 and 2019 to avoid any exceptional impacts associated with COVID-19.

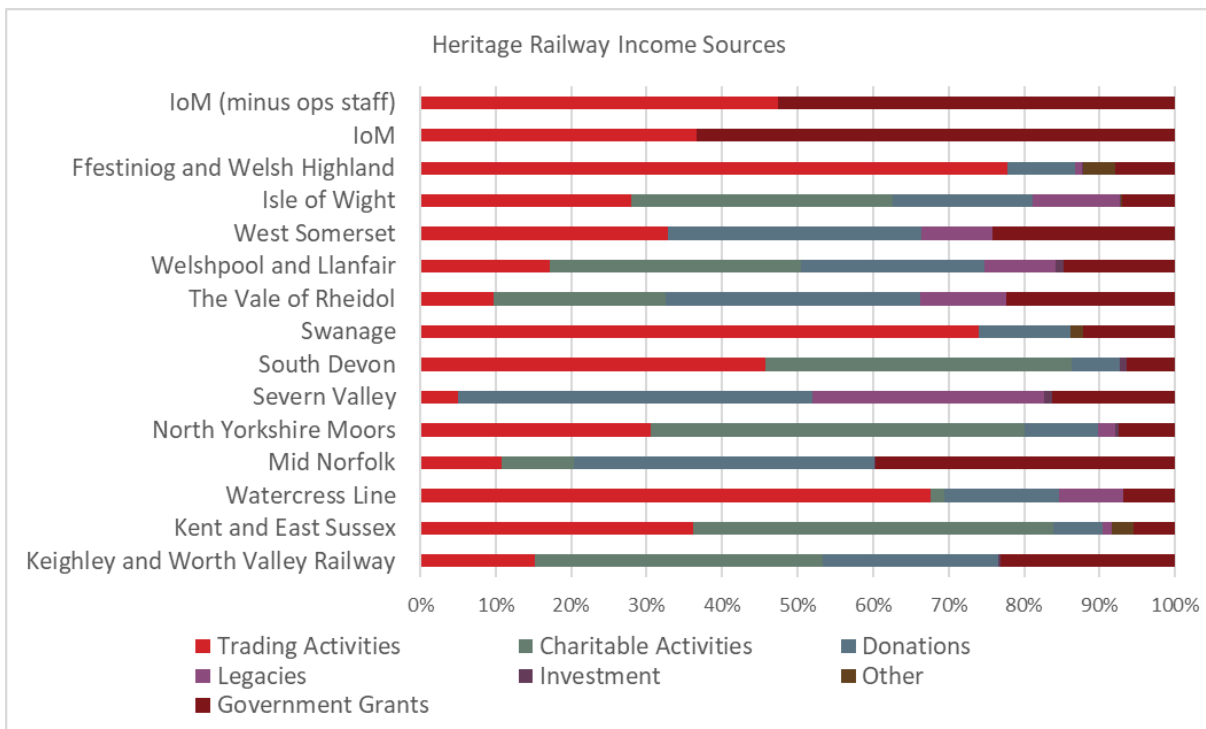


Figure 18. Sources of Income

6.8.3 The pie chart below presents income sources averaged for all railways.

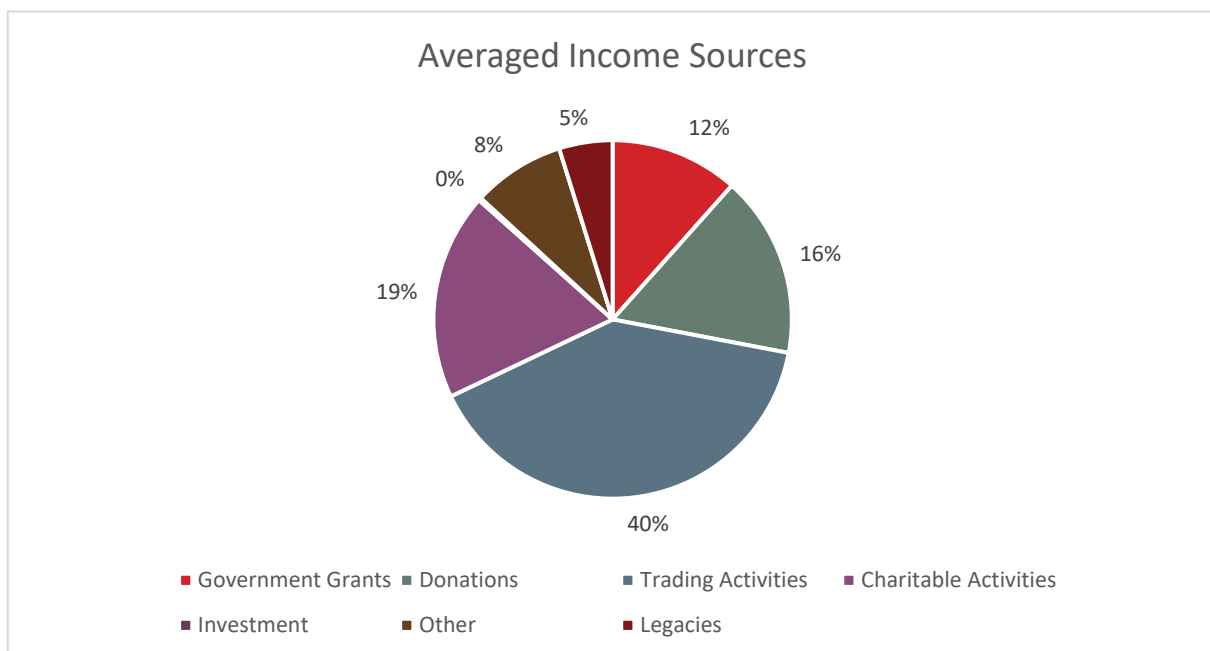


Figure 19. Averaged Income Sources

6.8.4 Across the railways considered, 59% of income came from trading activities or charitable activities. These two categories typically cover income associated with train operation and ancillary activities. The remaining 40% of income is sourced from a mixture of donations, legacies, investment incomes and government grants. The government grants included in

the average come from a small number of railways. It is likely that these railways received capital grants for specific schemes, which will have been subject to competitive bidding.

- 6.8.5 The key message from these figures is that the vast majority of income to heritage railway comes through train operation and associated ancillary revenues. The remaining 40% of income is from a mixture of sources over which there is limited control over their size from one year to the next. The IoM is unusual in that 63% of income is from government grants. If, however, the costs on the IoM are reduced by removing operating staff costs (as a proxy for volunteer operation of train services to make the numbers align with other heritage railways) the level of government grant falls to 53%. If all staff costs were removed the IoM railways would be self-funding from revenue but as is described below this is not a realistic proposition.
- 6.8.6 Understanding costs of operation on a consistent basis is extremely challenging. Different railways present costs in different ways with different approaches to aggregation. As with income, different types of expenditure fluctuate from year to year with projects and capital expenditure being the main driver of fluctuations. It is further complicated by transfers between different companies and charities representing the same organisation, linked to the desire to ringfence assets within a charity whilst operating a commercial trading arm. These fluctuations in costs and revenue means that overall financial performance of a railway can vary from year to year. In some years a railway can cover its costs and make a contribution to reserves, whilst in other years exceptional costs mean that the railway does not cover its costs and has to rely on reserves to cover expenditure. This ultimately means that railways can be susceptible to major shocks (such as COVID-19) if they are in phase where expenditure is exceeding income leaving little left in reserve. The IoM in contrast is in a position where to a greater extent these peak and troughs can be managed more successfully.
- 6.8.7 The table below presents summary costs and revenues for number of railways, where staff costs were also available.

RAILWAY	ALL REVENUE	STAFF COSTS	TOTAL EXPENDITURE	IN YEAR PROFIT	STAFF %
Severn Valley	£6.35	£3.14	£7.19	-£0.85	44%
Keighley	£1.26	£0.39	£1.87	-£0.60	21%
North Yorkshire	£7.14	£2.21	£4.58	£2.56	48%
Gloucestershire Warwickshire	£1.55	£0.23	£0.95	£0.60	24%
West Somerset	£2.89	£0.94	£1.95	£0.94	48%
Kent and East Sussex	£1.85	£0.59	£1.51	£0.33	39%
Llangollen	£0.92	£0.43	£0.94	-£0.02	45%
Bluebell	£4.09	£1.71	£3.65	£0.44	47%
Swanage	£2.98	£1.08	£3.37	-£0.39	32%
Welshpool	£1.17	£0.19	£0.65	£0.31	57%
Watercress	£3.76	£1.11	£2.71	£1.05	41%

Table 22. Summary Costs and Revenue Figures

6.8.8 The table above is characterised by larger railways with longer operating seasons which are comparable to the scale of operation on the Isle of Man, with the key points being:

- 4 of the 11 railways were operating at a loss within the year.
- Staff costs can represent up to half of all operating costs.
- Two railways have staff costs exceeding £2m. One of these, the North Yorkshire Moors Railway, is comparable to the IoM railways in that it has small local catchment population but a large infrastructure and long season making volunteer operation more challenging, though the railway is supported by a large number of volunteers from its wider hinterland.

6.9 Ancillary Revenue

6.9.1 A major source of revenue to heritages railways is non-farebox revenue. This can cover a variety of sources including catering, retail, building rent, car park charging and museum income. This income is important as it can contribute to ensuring that railways cover their operating costs and ideally increase the reserves available for capital or other spending. There can be concern that where a railway actively seeks additional spending from its visitors, it is abstracting that spend from the local economy. However, this is not necessarily always the case, given that at some locations facilities may be provided where no other facilities exist, whilst the promotion of locally-sourced products means that ancillary income on catering and retail items can support spending in local economy.

6.9.2 On the Isle of Man, ancillary income is comparatively limited, totalling £138k per annum, only around 7% of all income. This income is sourced from rental income, souvenirs and advertising.

6.9.3 The table below compares farebox and ancillary revenue on the Isle of Man Railways with other UK heritage railways. Farebox and ancillary revenue does not total All Revenue as railways can also obtain income for other sources as discussed above.

RAILWAY	ALL REVENUE	FARE REVENUE	ANCILLARY REVENUE	% OF REVENUE	% OF FAREBOX	YEAR
Isle of Man	£2.00	£1.86	£0.14	7%	8%	2021
Severn Valley	£6.35	£3.47	£2.02	32%	58%	2022
Keighley & Worth Valley	£1.26	£0.50	£0.45	35%	90%	2021
North Yorkshire Moors	£7.14	£3.79	£2.61	36%	69%	2022
Gloucestershire/Warwickshire	£1.55	£1.02	£0.54	35%	53%	2021
West Somerset	£2.89	£1.75	£0.84	29%	48%	2022
Kent and East Sussex	£1.85	£0.48	£0.36	20%	75%	2021
Llangollen	£0.92	£0.75	£0.07	7%	9%	2022
Bluebell	£4.09	£2.48	£1.52	37%	61%	2022
Swanage	£2.98	£2.37	£0.53	18%	22%	2022
Welshpool	£1.20	£0.39	£0.15	13%	38%	2022
Average	£3.02	£1.70	£0.91	30%	54%	-

Table 23. Ancillary Revenue (£m)

6.9.4 It can be seen that with the exception of the Llangollen Railway, all other railways have more than double the proportion of income sourced from ancillary revenue, with the average being around 30%. Ancillary revenue is typically worth in excess of 50% of the

value of fare box revenue. Clearly revenue does not equal profit margin as there are costs associated with raising this revenue. Using the figures above it is however possible to estimate additional revenue and margin if the IoM railways were to increase their level of ancillary revenue.

6.9.5 The table below summarises the impact of increasing levels of ancillary revenue.

ANCILLARY AS % OF FAREBOX	ANCILLARY REVENUE GENERATED	15% PROFIT	30% PROFIT
20%	£0.37	£0.06	£0.11
30%	£0.56	£0.08	£0.17
40%	£0.74	£0.11	£0.22
50%	£0.93	£0.14	£0.28

Table 24. Ancillary Revenue Projections

- 6.9.6 The figures suggest that whilst increases in revenue might be large, the figures diminish substantially when expressed as profit, which will ultimately contribute to reducing the level of subvention required, with maximum profit of around £280k per annum which equates to 8% of the subvention.
- 6.9.7 These figures will be lower than other heritage railways as paid staff are likely to be required to fill roles in an expanded catering or retail operation. Delivering an increase in ancillary revenue would require an investment in facilities especially stations to provide the opportunity to realise this revenue stream, along with direct management of existing facilities. Notable investments would be in facilities at Derby Castle and Ramsey.
- 6.9.8 More detailed work is needed on the scale of work required, but a change in policy would be required to increase the probability of proposals to invest in ancillary revenue being funded.

7. COST BENEFIT ANALYSIS OF ROUTE SECTIONS

7.1.1 Within this chapter we have examined a number of options for altering the rail network – these cover the operation of commuter services, the value of route sections and example of conversion of part of the route for other purposes.

7.2 Additional Morning Commute Service

7.2.1 Preceding analysis reveals that the heritage railways are primarily used as a leisure activity in and of themselves or as part of a wider leisure trip. Within this case study we consider if the railways could provide a sustainable way of supporting work and educational trips, by exploring the case for a commuter service into Douglas.

7.2.2 For such local residents, an earlier morning and later evening daily service into Douglas, along with all year round operation, could provide an alternative to driving.

7.2.3 An example case of an introduction of a commuter service on the MER was considered, with an appraisal of the net monetized benefits over 30 years¹³. This assumed a new light electric or electric/battery train would provide a faster and more comfortable service than the heritage rolling stock. The addition of a new link at Derby Castle would allow use of the DBHT track so that services could take commuters to Villa Marina for better walking access to a wider range of locations in Douglas. Two morning and evening additional services allow some flexibility for commuters.

7.2.4 The costs of introducing a new commuter service can be split into fixed costs and operating costs. The benefits of a new commuter service are composed of the revenue from ticket sales on the additional service (after netting off the loss of bus revenue where new rail passengers are expected to have previously commuted by bus) as well as the reduction in negative externalities (e.g. air pollution) caused by car journeys that are removed when someone switches from driving to using the train.

7.2.5 The most significant fixed costs of introducing a new commuter service are the costs of a new vehicle and the new link at Derby Castle. For a high level optioneering stage appraisal a cost of £3m in 2023 prices is assumed for a two-carriage battery train, and £1.5m assumed for new link work at Derby Castle.

7.2.6 Operating costs expressed as marginal costs of an additional service on a day where services are already operating are identified and discussed above. The non-staff operating costs of a battery/electric train will differ from the current heritage electric trains operated; however, as similar staffing levels are likely to be needed, and staffing is the greatest driver of marginal cost of a service, the current marginal cost rate is assumed to be a reasonable proxy of the marginal cost of a service on modern fleet on the same railway infrastructure.

¹³ This appraisal, and the following mini-appraisals in this report, forecast benefits and cost, applying pricing assumptions and discounting to compare prices in a single year of 2010 following the UK's Department for Transport's Transport Analysis Guidance (TAG). This analysis framework was selected as a well-developed framework allowing consistent comparison and applicable to comparable geographic and demographic areas.

- 7.2.7 New ticket revenue is expected to be generated by new services, particularly where these serve a previously unserved market, in this case commuters. Forecasting passenger numbers for additional or different services requires a more detailed study of population and journey purpose mapping. The sample passenger count data described above was used to allocate a percentage of passengers to Ramsey-Douglas trips, Laxey-Douglas trips and Ramsey-Laxey trips – a further assumption was made that the 7% of trips estimated to begin at smaller stations was evenly distributed between these three sections. Ticket yield was also assumed to vary proportionally to the variation in ticket price for return trips for each of the three journeys. This new revenue was reduced by the assumed lost revenue from previous bus users switching to rail. The standard UK average TAG diversion factor of 11% of bus diversion to rail was employed.
- 7.2.8 There are additional benefits to the provision of railway services not captured by net profit or loss. A common method for appraising these benefits of railway schemes is to estimate the marginal external costs (MEC) saved by some journeys switching away from car travel to now make the journey by train. The proportion of trips made on the additional railway services that were previously made by car was assumed to be 27%. In the absence of geographically-specific research into diversion factors, the lowest of the diversion factors for non-London trips recommended by in the UK’s transport appraisal guidance (27%) was employed. A sensitivity test of half this proportion of new rail trips replacing car trips was also made. The external costs that were incurred by car travel but are no longer incurred include congestion, local and global air pollution, noise, road infrastructure and the cost of accidents.
- 7.2.9 Using the costs inferred by these passengers splits, the estimated number of passengers needed for each additional service to give a benefit-cost ratio (BCR) greater than 1 is presented. At 88 passengers per service the additional commuter services is forecast to provide a positive net monetised benefit. Although this exceeds the heritage rolling stock capacity, this is unlikely to exceed the capacity of new two-carriage rolling stock. 88 passengers would represent approximately 3% of the working age population of Ramsey and Laxey on each service. As a sensitivity test, if only half the number of new passengers had switched from driving a car, then an estimated 104 passengers would be required for each additional service to give a forecast BCR greater than 1. Given the journey time is unlikely to be faster than the existing half-hourly bus service, this may prove a challenging passenger target.

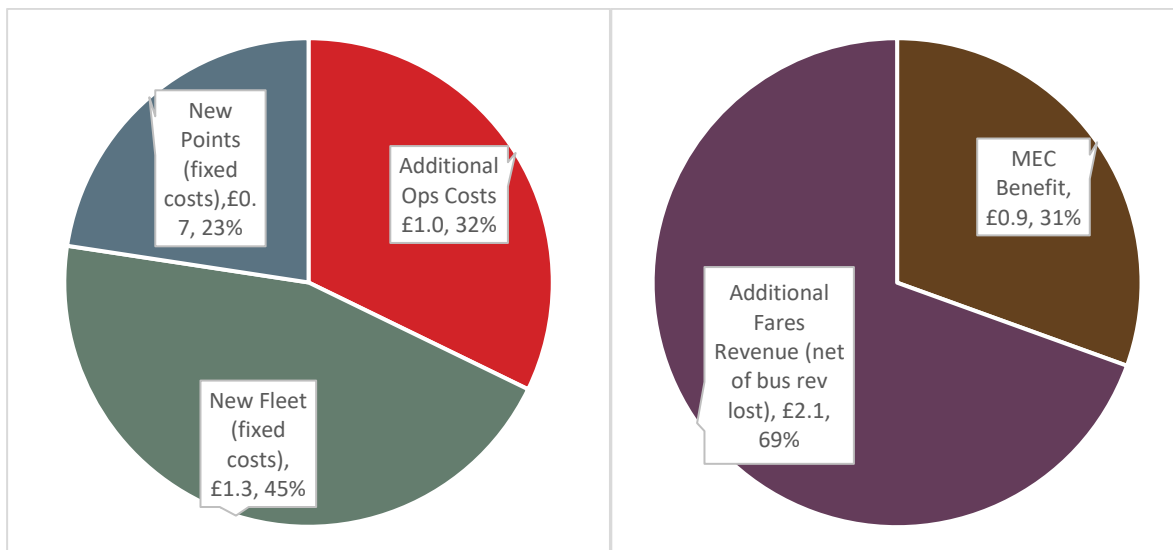


Figure 20. Costs and Benefits of New Commuter Service Over 30 years (£m, 2010 Prices, Discounted to 2010)

- 7.2.10 Figure 20 shows that the inclusion of the reduction in marginal external costs increases the expected benefits of the service by 45%, compared to new revenue alone. Note that net revenue shows the forecast increase in fares revenue (£0.3m per year, in undiscounted 2023 prices) less the loss of bus revenue, assuming 11%¹⁴ of passengers who use the new train service were previously making the same journey by bus.
- 7.2.11 The high but not impossible occupancy needed to give a BCR greater than one reflects the relatively low marginal cost of an additional service. The requirement to produce a positive BCR (ignoring wider economic impacts) is stricter than the current criteria for running a service on the route.
- 7.2.12 The above outcome is in large part predicated on being able to operate the service with a more rapid journey time than as a minimum the current bus service and requires the linking of the DBHT and MER to be successful. More detailed work on the technical feasibility, costs and forecast demand would be required to understand the viability of this proposal in more detail.

7.3 Curtailment of the IMR from Castletown to Port Erin

- 7.3.1 As operations of the railways result in a net loss, it is useful to understand the impact on costs and revenue of curtailing the route, continuing the current frequency of service but running trains only as far as Castletown.
- 7.3.2 Curtailing services impacts a much wider range of costs than adding or removing services on a day when services are already in operation. The following costs were assumed to be reduced proportionally to the reduction in track length or operating hours:

¹⁴ A May 2023 TAG diversion factor for bus

COST CATEGORY	REDUCTION BY
Operations Staff Wages	Operating Hours
Other Operations Staff Costs	Operating Hours
Fuel	Track Length
Other Fuel	Track Length
Track Staff Wage	Track Length
Track Engineering Staff Costs	Track Length
Track Engineering Equipment & Materials	Track Length
OHL Engineering Staff Costs	Track Length
OHL Engineering Equipment & Materials	Track Length
Other Track Costs	Track Length
Other Buildings Cost	Operating Hours

Table 25. Costs Expected to be Reduced by a Track Curtailment

- 7.3.3 Some costs, such as landscaping and structural maintenance remain even when the section of track is no longer in active use and management and marketing costs are unlikely to be impacted by a shortening of the route.
- 7.3.4 To address the revenue impacts of track closure the distribution of passenger trips was considered. Passengers travelling from and to stations between and including Douglas and Castletown are assumed to be unaffected by the closure further down the line and therefore no revenue impacts are considered. Passengers numbers are distributed over the route using the methodology described in 7.2.7.
- 7.3.5 Passengers affected by the closure of part of the route fall into two groups. Passengers previously travelling between Castletown and stations to and including Port Erin no longer have access to this route by rail. It is assumed that these passengers are lost trips to the railway, with some now travelling by car, some by bus and some no longer making the trip at all.

7.3.6 For the impact of reducing track length on the second group of affected passengers previously travelling from stations between Douglas and Castletown to stations between Castletown and Port Erin two scenarios are considered:

1. That passengers previously travelling now no longer travel by train and, as with the passengers previously travelling wholly on the closed portion of the line, some are now travelling by car, some by bus and some are no longer making the trip at all. This would be applicable where passengers are expected to use the railway line primarily to access Port Erin (or Douglas), rather than as simply a rail experience.
2. That passengers previously travelling for example, between Douglas and Port Erin, switch to bus or car as in scenario 1, but those who were travelling as a leisure activity now simply curtail their trip to travel between Douglas and Castletown. This would be applicable where passengers are expected to use the railway as simply a heritage railway experience, with no regard for destination.

7.3.7 In both scenarios a large cost saving from reducing operational costs as well as track maintenance costs exists, the impact of which is significantly reduced by the loss in railway ticket revenue (see Table 26 and Table 27). The loss in railway revenue is due to fewer passengers travelling, and those that do making shorter, and therefore lower value, trips. In the no switching scenario 1, the lost railway revenue significantly outweighs the cost savings, due to the majority of trips currently being made on the full length of the route and the full length of the route representing the highest revenue tickets.

Table 26. Scenario 1 (No Switching) Net Impact of Curtailment 2023 Prices, Single Year Values (£m)

FROM	TO	CHANGE IN PASSENGER NUMBERS	LOST RAIL REVENUE	ADDITIONAL RAIL REVENUE	NEW BUS REVENUE	MEC	TOTAL DISBENEFITS	COST SAVINGS	NET IMPACT
Douglas	Castletown	0.00		£0	£0				
Castletown	Port Erin	-0.02	-£0.05	£0	£0				
Douglas	Port Erin	-0.1	-£0.60	£0	£0.02				
Total		0.00			£0.03	-£0.06	-£0.68	£0.46	-£0.22

Table 27. Scenario 2 (Majority of Passengers Switch to a Shorter Journey) Net Impact of Curtailment 2023 Prices, Single Year Values (£m)

FROM	TO	CHANGE IN PASSENGER NUMBERS	LOST RAIL REVENUE	ADDITIONAL RAIL REVENUE	NEW BUS REVENUE	MEC	TOTAL DISBENEFITS	COST SAVINGS	NET IMPACT
Douglas	Castletown	0.11		£0.28	£0				
Castletown	Port Erin	-0.02	-£0.05	£0	£0.04				
Douglas	Port Erin	-0.11	-£0.60	£0	£0.02				
Total		0.00			£0.03	-£0.06	-£0.39	£0.46	£0.06

- 7.3.8 In scenario 2, the additional rail revenue is half the value of the lost revenue, as 38% of passengers are assumed to change to making the journey by another means of transport, and the passengers that remain on rail make shorter, lower value, trips.
- 7.3.9 In Scenario 1, the subvention required to operate services would actually increase by £0.2m as the loss in revenue would more than offset the costs savings, whilst in Scenario 2 only £0.09 per annum would be saved in subvention.
- 7.3.10 Arguably the results should be seen as a point in a range of possible outcomes, where a significant proportion of the time the railway would lose more than it gains from the truncation of services. With fixed costs being spread over a shorter route it is possible that fares would have to rise for the remaining section of route, this would be consistent with the fares benchmarking work – this in turn would impact on the perceived value for money of the route which may then deter some passengers with the effect being that subvention would increase to cover a further loss.
- 7.3.11 Excluded from these calculations have been estimates of the wider impacts of the removing this section of railway. Port Erin, Port St. Mary and to an extent Colby would be expected to see reduced levels of visitor spend negatively impacting on local businesses, however these impacts are less reliably quantifiable at a local level so are not included in the expected net benefit/loss described above. It may also be expected that there would be a small reduction in the volume of tourists visiting the Island.
- 7.3.12 In practice, an asset such as the land the railway currently occupies between Port Erin and Castletown is likely to be put to an alternative use if the railway was curtailed, for example as a cycle path. However, the monetised health and journey quality benefits of a cycle path require a high number of users to overcome the re-construction costs involved. Section 6.5 describes the drivers of costs and sources of benefit for a cycle path on the Laxey-Ramsey stretch of track. Costs for the Castletown-Port Erin section are likely to be similar, with a reduction of more than 30% compared to the Laxey-Ramsey forecast costs¹⁵ being unlikely. As such, the inclusion of a cycle track may provide a new public benefit but is unlikely to improve the net present value of the costs and benefits of line curtailment.

7.4 Curtailment of the MER from Laxey – Ramsey

- 7.4.1 A second part of the network that could be removed with limited operational impacts on the remaining sections of the network is the route from Laxey to Ramsey.
- 7.4.2 The approach to appraising this option follows the approach to curtailment of the IMR steam railway from Castletown to Port Erin in section 7.3. Passengers affected by the closure of part of the route again fall into two groups. Passengers previously travelling between Laxey and stations to and including Ramsey no longer have access to this route by rail. It is assumed that these passengers are lost trips to the railway, with some now travelling by car, some by bus and some no longer making the trip at all.

¹⁵ Based on comparative track lengths

7.4.3 For the impact of reducing route length on the second groups of affected passengers previously travelling from stations between Derby Castle and Laxey to stations between Laxey and Ramsey two scenarios are considered:

1. That passengers previously travelling now no longer travel by train and, as with the passengers previously travelling wholly on the closed portion of the line, some are now travelling by car, some by bus and some are no longer making the trip at all. This would be applicable where passengers are expected to use the railway line primarily to access Ramsey (or Douglas), rather than as simply a rail experience.
2. That passengers previously travelling for example, between Derby Castle and Ramsey, switch to bus or car as in scenario 1, but those who were travelling as a leisure activity now simply curtail their trip to travel between Derby Castle and Laxey. This would be applicable where passengers are expected to use the railway as simply a heritage railway experience, with no regard for destination.

7.4.4 Table 28 presents the no switching scenario 1 and Table 29 scenario 2, where passengers who do not change modes change from making the journey from Derby Castle to Ramsey to Derby Castle to Laxey.

Table 28. Scenario 1 (No Switching) Net Impact of Curtailment 2023 Prices, Single Year Values (£m)

FROM	TO	CHANGE IN PASSENGER NUMBERS	LOST RAIL REVENUE	ADDITIONAL RAIL REVENUE	NEW BUS REVENUE	MEC	TOTAL DISBENEFITS	COST SAVINGS	NET IMPACT
Derby Castle	Laxey								
Derby Castle	Ramsey	-0.08	£-0.35		£0.02				
Laxey	Ramsey	-0.02	£-0.06		£0.04				
Total						£-0.06	£-0.44	£0.56	£0.11

Table 29. Scenario 2 (Majority of Passengers Switch to a Shorter Journey) Net Impact of Curtailment 2023 Prices, Single Year Values (£m)

FROM	TO	CHANGE IN PASSENGER NUMBERS	LOST RAIL REVENUE	ADDITIONAL RAIL REVENUE	NEW BUS REVENUE	MEC	TOTAL DISBENEFITS	COST SAVINGS	NET IMPACT
Derby Castle	Laxey	0.08		£0.17					
Derby Castle	Ramsey	-0.08	£-0.35		£0.02				
Laxey	Ramsey	-0.02	£-0.06		£0.00				
Total						£-0.06	£-0.28	£0.56	£0.28

- 7.4.5 In both scenarios the net impact of curtailing the railway, including marginal external cost (MEC) increases, is positive. This curtailment differs from that of Douglas to Port Erin in that the proportion of visitors travelling to the end of the line is lower for the MER and the proportion of track (and therefore maintenance costs and time taken to operate) that would be closed is higher, which also means that operating costs savings are higher.
- 7.4.6 The cost savings in these scenarios represent 25% of total MER costs, providing one of the few methods still available to achieve cost reductions, if a cost minimisation policy was pursued. This not insignificant cost reduction would result in a 60% reduction in journey time and journey distance. After both costs savings and revenue losses are accounted for subvention levels would fall by £0.1m in Scenario 1 and £0.3m in Scenario 2, with the latter being around an 8% reduction in subvention levels.
- 7.4.7 Such a non-marginal change to the maximum trip length may have a greater impact on wider economic impacts and the attractiveness of the route than smaller reductions in scale of operation. 49% of businesses whose customers used Ramsey station responding to the survey rated access to work, leisure or education as an extremely important feature of the railway.
- 7.4.8 As with the Castletown – Port Erin example, these figures should be seen as a range. In this case the more modest results associated with Scenario 1 are likely to be the outcome as the combined benefits to visitors of trip to Laxey followed by a trip to Ramsey would be lost. It would also mean that the most visually attractive parts of the route would be lost with the MER being reduced to a feeder to the SMR route. Closure would also create significant logistical challenges in Ramsey during the TT races.
- 7.4.9 Any curtailment should also be seen in the context of the £7.1m spent on the route in the last five years to upgrade track and infrastructure, an investment that should minimise the need for capital spend on the route for several decades. As with the Port Erin case study the loss of the route negatively impact businesses in Ramsey reduce the attractiveness of the Island to potential visitors driving a reduction in tourist spend overall.

7.5 Single-Tracking for Cycle Path Provision from Laxey-Ramsey

- 7.5.1 An option to reduce the operating costs of the MER while still sustaining services would be to reduce the double-tracked railway to a single track between Laxey and Ramsey. The single track could provide significant benefits to residents and the visitor economy as a dedicated cycle path.
- 7.5.2 A single track without any additional passing loops would reduce the possible service frequency to one tram every two hours. Introducing a passing loop would allow hourly services, whilst three trams north of Laxey could be accommodated with two passing loops, avoiding any significant reduction in services compared to current timetable in place for most of the year.
- 7.5.3 Cost savings would be the track and overhead line maintenance costs for this portion of the track; were the frequency of services to be restricted then the total costs of operating services would also be reduced proportional to the fall in services. A case is considered

below for retaining a three vehicle timetable, and therefore only track and overhead line related costs have been reduced; reductions in these costs follow the methodology set out in preceding sections, with costs reduced in proportion to the decrease in track (in this case a reduction of 30%). The cost savings may be overstated as single track operation would increase the marginal wear and tear on the remaining infrastructure.

7.5.4 Additional capital costs would be required to implement the cycle path. A study to understand the costs specific to this situation would be needed to estimate these costs accurately. To understand the initial scale of costs, the per km cost rate for conversion of a canal-side mud track suggested in the UK’s 2017 DfT report “Typical Costs of Cycling Interventions”¹⁶ were applied, added to the railway’s own estimated cost of track replacement, less track materials and design.

COST CHANGES	2023 PRICES (£M)
Upgrade Mud Track to High Quality Cycle Path	£2.00
Track Removal	£8.14
Annual Track and Engineering Costs Change	-£0.12

Table 30. Infrastructure Additional Costs and Reduction in Operational Costs for Single-tracking and Cycle Path Implementation

7.5.5 Cycle schemes share many of the MEC benefits described in earlier sections but also bring a range of health benefits and benefits of a better journey quality. The UK’s DfT Active Mode Appraisal Toolkit (AMAT) has been used to capture many of these additional benefits achievable from implementing a cycle path on this stretch of railway, although some health benefits remain unmodelled and a detailed mapping of journey types would allow more accurate modelling.

7.5.6 As benefits from a cycle scheme fall over a long period of time and this study’s remit does not include cycle path user estimation, the approach has been taken to examine the number of daily users of the cycle path needed to create a BCR of 1 for the project over 30 years; that is, similar expected monetised benefits and costs.

7.5.7 To achieve a BCR of 1, an average of 450-500 daily cycle path users are estimated to be required. To achieve this volume of cycling would require a major growth in cycling by tourists and local residents for leisure purposes and it is not currently clear that this volume of usage could be achieved.

7.5.8 The monetised benefits of the cycle path, aside from reduction in operating costs, are mostly the health benefits of physical exercise. MEC benefits of reduced noise, congestion and air pollution contribute only a very small percentage of these benefits (see Figure 21).

¹⁶ <https://assets.publishing.service.gov.uk/media/5ba4c09ded915d2e2ea46815/typical-costings-for-ambitious-cycling-schemes.pdf>

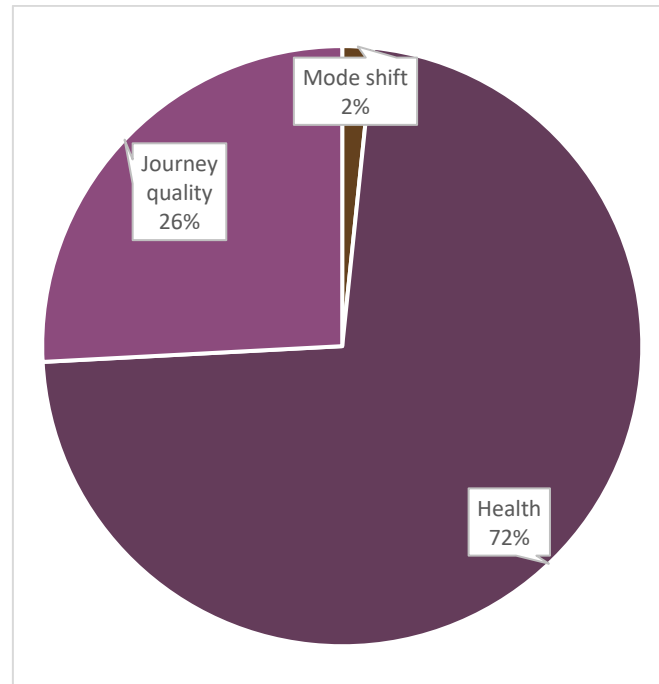


Figure 21. Contribution of Benefit Categories to Monetised Benefits of Cycle Path (Excluding Reduced Railway Operating Costs)

7.6 Extension of the DBHT

- 7.6.1 The DBHT reopened in July 2022 after closing for a refurbishment of the promenade public realm. Since it's reopening the DBHT has been operating only as far as the relayed track allows, to Villa Marina. This curtailment of the route has reduced the ease of access of the MER and SMR from Douglas, reduced ease of transfer between the heritage railways and also between the heritage railways and the sea terminal. However, the currently operation continues to serve a leisure function and reduce the walking distance required between Douglas and the MER.
- 7.6.2 The tramway could be extended a very short distance to War Memorial; this would allow better coach access and bring the end of the route very slightly nearer the centre of Douglas. The tramway could also be extended back to interchange with the sea terminal; both options are examined below.
- 7.6.3 The infrastructure costs involved in each option are likely to be better estimated by the Department for Infrastructure, with their recent experience of design and implementation on this route. Table 31 shows workings for the operating costs and revenue changes associated with each option.

	TO WAR MEMORIAL	TO SEA TERMINAL
Route Length (Metres)		1,500
Services Scheduled 2023 (One Way)		5,518
Variable Cost per Service		£29.90
Increase Route Length by 150m	10.0%	
Increase Route Length by 850m		56.7%
Increase in Variable Cost per Service	£2.99	£16.94
Increase in Variable Cost Over Year ('000)	£16.5	£93.5
Average Realised Yield per Passenger		£2.25
Increase Fares by 20% (£2.50 to £3.00) per Passenger		£0.45
Increase Fares by 60% (£2.50 to £4.00) per Passenger		£1.35
Required Annual Passengers at New Ticket Price ('000)	37	69

Table 31. DBHT Extension Operating Costs and Revenue

- 7.6.4 As with preceding sections, variable costs were identified. The increase in variable costs was assumed to be proportional to the extension of each service in length. To demonstrate the impact of fare increases that might be implemented in conjunction with this extension, a £0.50 increase has been assumed for the short extension, and a £1.50 increase for the long extension.
- 7.6.5 In order that the cost of implementing the route extensions do not add to the operational subvention required by the DBHT, an additional 37,000 trips would be required to war memorial, while an extra 69,000 trips would be required if the route was extended to the sea terminal. If current trends in 2023 to September continue, passenger numbers for the 2023 year would be about 44,000 so the scale of increase in passenger numbers required to avoid increasing the DBHT's contribution to subvention, while implementing ticket price rises, is ambitious.
- 7.6.6 Whilst the direct financial case for extension is challenging there is a wider strategic case for the investment. If the railway gives greater attention to visitor experience the Sea Terminal could act as the gateway to the MER/SMR routes access via the DBHT.

8. GOVERNANCE STRUCTURES

8.1.1 As described in the introduction, the Isle of Man Railways are currently managed as a Division of the Government's Department of Infrastructure (DoI). Whilst previously managed jointly with Bus Vannin, the railways are now operated as a standalone organisation, though there are some shared functions with Bus Vannin.

8.1.2 The terms of reference for this review require us to review the current governance structure and appropriate alternatives and identify if there is a case for change in the current structure.

8.1.3 To understand if there is a case for change it is necessary to identify objectives for the railway against which alternative structures can be assessed.

8.2 Objectives

8.2.1 The railways of the Isle of Man are similar to many other railways in that their core purpose is to provide a safe operation that is appealing to potential passengers and does so in a way that minimises costs, both operating and capital. Like many railways, there are also public policy objectives that temper what would otherwise be comparable to a commercial business. The policy objectives on the Isle of Man are however different from most publicly funded and managed railways, with a greater emphasis on the railways acting as a visitor attraction and supporting the visitor economy and with a much lower priority given to the role the railways have in providing local transport for residents of the Island, with Bus Vannin largely fulfilling this latter role.

8.2.2 The current objectives of the railway can be summarised as follows:

1. Safety - To operate the railways safely, minimising risk to staff and passengers.
2. Delivery - To provide an attractive and reliable service offer to the railway's target market.
3. Finance - To deliver the best possible financial position by minimising costs and maximising revenue (subject to delivering objectives 1 & 2), thus helping minimise the level of subvention required.
4. Capital - To manage capital assets in a way that provides the best long term value and which, through asset management ensures that expenditure required is identified early avoiding a need for reactive maintenance.
5. Marketing - To market and promote the railways both to increase revenue, but also to contribute to promoting tourism to the Island.

8.3 The Current Organisation

8.3.1 Before considering alternative governance structures we consider in the section below how the current structure meets these objectives.

Safety

- 8.3.2 The terms of reference for this report do not cover safety management, however our understanding is that notwithstanding a small number of incidents the railway does indeed comply with safety requirements.

Delivery

- 8.3.3 In their current form, the railways largely deliver a reliable service providing the planned timetable to passengers. Inevitably, as with all railways, there are occasions where operational problems prevent services operating but these are not serious issues. However towards the end of the 2023 season there have been some issues on the MER with staff shortages. This has been caused by the casual staff working under zero hours contracts making themselves unavailable to work. The root cause of this is thought to be staff taking leave towards the end of what has been a busy and successful season. It does however highlight the challenges of operating a service that relies on zero hours contracts. The situation would be likely to become more challenging if the service relied on volunteers.
- 8.3.4 Whilst the service offered is generally reliable, there are issues with capacity. The MER is known to have a particular issue with coach bookings taking up capacity resulting in “walk up” passengers being turned away from services. There is a trade-off here around the marginal cost (and ability to operate) additional services to address this and the reputational damage that this situation causes. Similar issues also exist on the IMR where trains have operated at capacity. Resolving the issue on this railway is more challenging as beyond adding additional carriages to each of the two available trains there are not further resources available to enhance capacity and operation of third train in service would add significant cost
- 8.3.5 There are also areas where the railway could improve its offer to passengers. The visitor facilities at a number of locations are limited and utilitarian in their nature. The most notable examples being Derby Castle and Ramsey station on the MER. In their current form, opportunities are missed to both enhance the visitor experience through explanation and interpretation of the railways and their role on the Island; more practically, visitor facilities such as waiting areas, and retail and catering facilities are lacking. Development of such facilities, whilst requiring investment, would enhance the visitor experience and contribute to increasing ancillary revenues. It may also enhance the case for an increase in fares going forward. The high quality passenger facility provided by the Seaton Tramway at Seaton demonstrates the type of modern facility that can be provided.
- 8.3.6 The types of issues outlined above in part reflect a lack of available funding for enhancements and a desire to manage operating costs. It has perhaps also reflected the emphasis over the last 10 years on renewals of existing infrastructure and regaining control of asset condition.
- 8.3.7 The current governance structure does have some influence on these issues. The Department of Infrastructure is focussed on the management of strategic national assets and is structured to focus on delivery of infrastructure and costs management.

Finance

- 8.3.8 As has been described in previous chapters cost management on the railways is generally good. Engagement with staff and management has shown that targeted measures are in place to limit costs, often achieved through fine tuning of trains services to attempt to match supply and demand. As described above this can create a tension around the management of peak demand.
- 8.3.9 The approach to revenue management has recently improved. The fare rises in 2023 have brought the railways into line with other similar railways in the UK. Further increases in farebox revenue would have to be driven by increasing passenger numbers, achieved through marketing discussed below.
- 8.3.10 A gap in the railway's current revenue stream compared to other railways is around ancillary non farebox revenue. Currently the railway only brings in such revenue through souvenir shops, on train catering, and the Port Erin museum.
- 8.3.11 Comparable railways make substantial contributions to these income streams through catering and retail operations. Some opportunities to achieve this do exist but would require a change in policy to move towards direct operation rather than sub-contracting, whilst new facilities would need to be provided at some locations such as Derby Castle.

Capital

- 8.3.12 The railways have benefited from a sustained period of capital investment focussed primarily on infrastructure renewals. The level of investment has been reduced since the COVID-19 pandemic, reflecting wider pressures on government funding.
- 8.3.13 Capital spending can fit within three categories:
- Renewals – Capital spending required to maintain the railway in its current condition. Examples include track renewals or locomotive overhauls.
 - Resilience – Investment required to ensure the long term sustainability of the railway. This might include additional investment required to mitigate climate change or proposals to convert locomotives to operate on bio-oil to contribute to decarbonisation.
 - Enhancements – Capital spending on schemes to increase or improve the quality of the outputs of the railway, ultimately leading to additional revenue or socio-economic benefits. This might include investment in station facilities or new rolling stock.
- 8.3.14 Whilst funding has been available and targeted at renewals out of necessity, there is also a cultural constraint within the DoI on the types of scheme that might be funded. There is a perception that capital investment in enhancement rather than renewal projects would be unlikely to be funded. Whilst funding constraints at a national level will exist irrespective of the railway governance structure, alternative approaches may favour a broader approach to spending.

Marketing

- 8.3.15 In their current form, the railways have developed a strong marketing team that has been successful in targeting specific markets notably coach tours and cruise ships. Both of these markets have provided volume and additional revenue to the railway, and in doing so, some additional benefits have been brought to the Island through visitor spending.
- 8.3.16 At a practical level however there are gaps in the way the railways are marketed, for example the railway's website is poor, with google searches bringing up two webpages from Visit Isle of Man and the IoM public transport website. Neither provide a coordinated overview of all four railways or the information that visitors would expect from comparable railway websites.
- 8.3.17 Through discussions with a number of organisations as part of this study it has become clear that a limitation of the current approach is a poor interface with organisations promoting the Island notably, Visit Isle of Man. Through our work it has become clear that there is a wider challenge around silos in the promotion of tourism on the Island which Visit Isle of Man is now trying to address.
- 8.3.18 An issue to be considered when reflecting on different organisational structures is the impact it would have on efforts to better coordinate the marketing and promotion of the Island that enhances the benefits to all parties.

8.4 Alternative Structures

- 8.4.1 We have identified the following alternative structures:
- Option 1: Management and operations of the network by a commercial company.
 - Option 2: Operation as a charitable body.
 - Option 3: Publicly owned arm's length company.
- 8.4.2 A feature that should be applied to Options 2 and 3, and the current governance structure if retained, is the addition of a board of directors or governors to oversee the management of the railway. Within the current structure there is direct line of reporting between the manager of the railway and the DoI. This approach, within budget constraints, gives railway management significant autonomy, but also places them under significant pressure to have both a diversity of skills and experience covering civil, mechanical and electrical engineering, train operations, costs and revenue management and marketing. In addition to this the railways have multiple stakeholders who may not be fully represented in the current structure and who in their requests and lobbying may not fully understand the nature of the challenges that the railways work under.
- 8.4.3 The purpose of a board of directors would be as follows:
- To support railway management by providing a check and challenge role to the activities of the railway.
 - Oversee the development of policy, strategy and objectives for the railway.
 - To provide representation from all relevant bodies with an interest in the success of the railway.

8.4.4 The board is intended to have a strategic role that would not be involved with day to day operations except in exceptional circumstances. This would also help address a lack of formalised strategic planning for the railway. Whilst railway management does have long term plans and aspirations these do not exist in a structured way and progress in developing them is slowed by the challenges of day to day operation.

8.4.5 The exact membership of the board may vary dependent on the organisational structure of the railway, however the it might be expected that there would be representation from:

- Department of Infrastructure – to provide support on engineering technical issues.
- Department for Enterprise – to provide support on business and marketing issues
- Visit Isle of Man.
- Enthusiasts and supporters associations.
- Culture Vannin and/or Manx National Heritage– to support with visitor experience and promote cultural and historical interpretation of the network.
- An independent representative with experience of heritage railway management and operation (likely to be an off Island appointment).

8.5 Option 1 – Commercial Company

8.5.1 Within this option the rail network would be operated by a commercial organisation, drawing on the small number of comparable examples in the UK, including the Paignton and Dartmouth Railway and the Ravenglass & Eskdale Railway.

8.5.2 In the sections below we evaluate the option against the five objectives for the railway. There are a number of assumptions about this option:

- The IoM government would operate a procurement process to select an appropriate operator.
- The infrastructure and rolling stock would be leased to the commercial company to ensure that were the company to become insolvent the physical assets of the railway would be protected.
- The length of the lease could be used as a mechanism for terminating the contract in cases of poor performance.

8.5.3 As described below there are areas where the government would need to decide on the level of ongoing intervention they would wish to have especially around service levels.

Safety

8.5.4 The private operator would be expected to operate the network safely and in compliance with appropriate standards.

Delivery

8.5.5 The IoM government, before tendering for a private operator, would need to make decisions over the level of service that would be provided. This would include the decision about the length of season and number of services. These decisions would be needed to

address a wider decision over whether to provide the operator with subsidy or not (discussed below).

8.5.6 There are three possible approaches to specifying services:

- The government sets no requirements, allowing the private operator full commercial freedom to operate the rail network as they see fit.
- The government specifies a minimum service level and season length and allows the operator the freedom to operate any services it wishes above this level.
- The government determines the service level in detail and the private operator runs the service to that specification.

8.5.7 Each of the above increases the complexity of the interface between government and operator which would inevitably add management costs to the government, offsetting any other cost savings that might be achieved.

8.5.8 Operation by a commercial organisation may not contribute to resolving the specific delivery issues that already exist for example around crowding for example on the MER, if it did not align with a profit maximisation strategy. This would also mean that the ability to use the railways to support wider objectives around tourism and economic growth would likely be limited.

Finance

8.5.9 Typically when publicly owned transport services are privatised the key reason (beyond the release of cash to the previous owning authority), is the desire to reduce costs or increase revenue, where it is believed that public sector ownership is preventing this. An example of this was the privatisation of British Rail in the 1990s.

8.5.10 The rationale described above can only be delivered if with there are previously unrealised sources of demand and revenue or there is the ability to substantially reduce costs for example by using capital investment to improve productivity (e.g. the replacement of inefficient rolling stock with newer rolling stock).

8.5.11 In the case of the IoM Railways there is limited scope for cost reduction. By definition, whilst less efficient than modern trains or trams, there is no case for the replacement of current rolling stock as it is there age and uniqueness that makes them attractive to visitors. Furthermore recent capital investment notably in track renewals has captured much of the cost reduction that can be achieved by reducing the need for track maintenance.

8.5.12 The only area where private operators might achieve cost savings would be through reductions in staff pay, which could be achieved by removal of staff from the current government grading structure. Achieving this in practise would be difficult on an Island with very low unemployment and relatively high living costs. Reducing staff pay, which would be most easily achieved for seasonal operating staff, would present a real risk of reducing the number of employees and thus the level of service operated.

8.5.13 The two heritage railways identified above may well be able to operate commercially based on operating a small number of long trains with the aim of maximising loadings on

each service. The Paignton & Dartmouth Railway has also recently closed all intermediate station on the route as a cost reduction measure which has also allowed them to maximise service frequency with a single train in operation.

- 8.5.14 Such an approach could in theory be applied to IMR where trains can be lengthened, but a similar approach would not work on the MER, SMR and DBHT where increasing within-train capacity rapidly incurs additional labour costs.

Capital

- 8.5.15 A complication when reflecting on the three types of capital investment (renewal, resilience, and enhancement) is that it may be challenging for a private company to justify the scale of investment in resilience that might be required. This would suggest that the government may have to provide periodic investment in infrastructure.

- 8.5.16 A private company would be able to source capital for investment through borrowing. However if it assumed that the rolling stock and infrastructure is leased rather owned by a private company the ability to borrow against the value of assets is limited. Furthermore the company would only realistically be able to invest in infrastructure and rolling stock if there were guarantees that any uplift in the value of those assets could be recouped if the lease were terminated. The implication of this would be that if a lease were terminated the government would have to buy back any uplift in value from the company.

Marketing

- 8.5.17 It is likely that a private company would place a strong emphasis on marketing and promotion, and as an operator of a major visitor attraction on the Island would play a substantial role in the overall promotion of the Island to visitors.

Summary

- 8.5.18 The implementation of a privately run operation would be complex and require careful management by the government. The main benefits of the approach would be to enhance the marketing objective and support the enhancement component of capital expenditure. It is not however clear that the approach would be financially viable. There would appear to be an especially high risk around the MER, SMR and DBHT unless subsidy continued to be provided. This conclusion is drawn based on the limited scope available to reduce costs whilst maintaining services.

8.6 Option 2 – Operation as a Charity

- 8.6.1 Within Option 2 it is assumed that the railway operation is converted to operate as a charitable trust, operating with government financial backing.

- 8.6.2 The Canal and River Trust (in England and Wales) is a precedent for taking a public body which owned and operated a Heritage Asset and put it at arms-length from central government and provides a useful case study. In 2012 one of the bodies transferred to the voluntary sector under the Public Bodies Reform Programme was British Waterways which became the Canal & Rivers Trust. Despite years of being controlled by government, the waterways had not found their niche in public ownership and their role had evolved

from being a freight transport provider to facilitating regeneration and tourism. As a Charitable Trust it has a vehicle to raise its own revenue, whilst in receipt of a negotiated government grant. The Charitable Trust owns the assets and government's liabilities are limited. Any surplus made is reinvested into the assets, rather than flowing back to central government. Such a model provides the reassurance of a guaranteed income stream but also the incentives to develop the Trust's assets knowing that any proceeds are available for reinvestment.

8.6.3 The Trust is overseen by a board of trustees responsible to stakeholders rather than directors reporting to a government department whose wider objectives might not align with those of the Trust.

8.6.4 A key component of the success of the Trust has been the financial settlement it received from DEFRA. This however ultimately led to challenge over the whether the trust truly operates as a charity. In 2023 the Office for National Statistics has redefined the Canal & Rivers Trust as a "Public Non-Financial Corporation" rather than a charity. It was judged that "the Canal & River Trust is a market body because there is sufficient evidence to suggest it charges economically significant prices and passes the quantitative market test. The Canal & River Trust is therefore judged to be under government control. This change of status is necessary as the Trust is not and is unlikely ever to be self-supporting, but does have significant liabilities to manage and therefore cannot be wholly detached from central government. The maintenance of its liabilities which cover significant and aged infrastructure in the form of dams and canals cannot be avoided, is something that the government would ultimately be responsible for if the trust ceased to exist.

8.6.5 The situation described above has close parallels to the situation on the Isle of Man. The rail network could be organised as an arm's length trust, but would continue to require financial input from the government to enable it to maintain its physical liabilities and operate services. A further complication in the Isle of Man context would be around the perception of the government favouring one large charity over other charities on the Island, especially if both revenue and capital funding were to be provided.

8.6.6 In the sections below we assess the approach against the five objectives.

Safety

8.6.7 The railway would be expected to operate the network safely and in compliance with appropriate standards.

Delivery

8.6.8 A charitable trust would have a greater incentive to deliver attractive services for passengers both in terms number of services, but also quality. Aspects of this could be incorporated as a part of the stated objectives of the charitable trust.

8.6.9 If it is assumed that the railway continues to use paid staff it is reasonable to assume that the current level of service could be maintained. This however would be subject to the key dependency around the level of funding that would be provided by government, although this is also the case with the current arrangement.

8.6.10 Charitable status may also encourage greater input from volunteers and local communities, reflecting a similar approach taken with the Canals & Rivers Trust. As stated above there are unlikely to be sufficient volunteers to operate services reliably using volunteers but they could have role in “added value” projects that enhance the railway’s visitor offer.

Finance

8.6.11 As described above whilst operating as charity the railway would still be dependent on financial support from the government to cover operating costs. The primary difference between a heritage railway in the UK and on the Isle of Man is the greater pool of volunteers to draw on in the UK. As described in earlier sections this is not realistic on the Isle of Man and therefore paid staff would continue to have a role. As with a commercial company a charity could choose to employ staff at lower wage rates but this may well make it harder to attract and retain staff risking a reduction in the level of service that can be delivered and a reduction in revenue.

Capital

8.6.12 The impact on capital spending would be heavily dependent on any agreement made with government over funding. Without some commitment from government to at least support essential renewals and resilience activities the long term viability of the railway would be uncertain. Alternative funding sources for capital are limited. In the UK heritage railways typically source funding for capital investment from:

1. Financial reserves – generated as a result of lower operating costs through the use of volunteers.
2. Use of volunteer labour to reduce cost – unlikely to be viable to on the Isle of Man
3. Individual donations and legacies – these are ad hoc in nature and are often conditional in what they can be spent on.
4. Scheme specific fundraising – this approach is often used for very specific renewal schemes, especially bridges, where a route might be at threat of closure if a renewal didn’t occur.
5. Government grants – these are typically ad hoc in nature and utilise a competitive bidding process with many individual schemes competing for a constrained funding pot.
6. Lottery grants – the heritage lottery has part funded numerous investments in heritage railways. The scale of funds available reflects the size of the National Lottery as a whole in the UK, with grants sometimes exceeding £1m. The equivalent lottery in the Isle of Man, as a much smaller country, is able to support only smaller grants.

8.6.13 The mixed sources of funding above present a challenging picture when applied to the Isle of Man. Points 1 and 2 would be largely unavailable, whilst point 6 be expected to generate relatively low absolute levels of funding. This leaves points 3 and 4 which would be likely to bring new capital into the railway but are difficult to depend on with the former relying on individual generosity, whilst the latter is an approach that should be used sparingly to avoid fatigue setting in amongst doners.

- 8.6.14 This leaves point 5 which effectively replicates the current situation where the government provides grant funding for capital expenditure.

Marketing

- 8.6.15 As a charitable organisation the railways would be keen to market and promote their product both on and off the Island. There would be the opportunity to coordinate with Visit Isle of Man and other organisations, but the railway would be expected to put its own interest in revenue generation first.

8.7 Option 3 – Publicly Owned Arm’s Length Company

- 8.7.1 The third option considers the retention of the railway in public ownership, but operating as an Arm’s Length Company, led by a board of directors with representatives from the DoI, Department for Enterprise (DfE), enthusiasts and supporters groups, Visit Isle of Man, and an independent representative with experience of heritage railway operation elsewhere.
- 8.7.2 The rationale for this approach is to recognise the case for a change in emphasis in the railway’s development. For the last 10 years the railway has been recovering from a sustained period of underinvestment which in turn has led to a comprehensive programme of renewals that has significantly improved the quality of the infrastructure. Whilst not quite complete, this places the railway in a much stronger position from an engineering perspective than it historically has been.
- 8.7.3 Through this programme it has been appropriate to manage the railways from the DoI, but as an asset management and project delivery focussed organisation the DoI is less suited to the management of a railway more focussed on growing demand and revenue. A move to an Arm’s Length Company would give the railway greater day to day independence, but would also allow the railway’s strategy and objectives to be defined by a broader group.
- 8.7.4 The inclusion of directors provided by the DfE and Visit Isle of Man will help move the emphasis for the railways towards supporting the tourism development and the economic growth this will bring and recognises the scale of the economic contribution that the railway makes to the Island. Maintaining and improving the economic contribution requires a greater emphasis on increasing passenger numbers further (and in turn generating more visitors to the Island) and increasing revenue for the railways (either through ticket sales or ancillary revenue). Whilst much work has been achieved in this area over the last ten years, increasing demand and revenue further will require different skills that move away from cost management. The approach will also help contribute to addressing wider issues across the Island around the integration of tourism initiatives.
- 8.7.5 The inclusion of representatives from the railways supporter groups, will ensure that the railways receive input from those who have a deep understanding of the railway’s cultural and technical heritage.
- 8.7.6 The purpose of an independent director with wider knowledge and experience of other heritage railways will also help to strengthen the development of the railways by providing knowledge of successes of elsewhere.

8.7.7 The Arm's Length Company, would require a parent government department. The DoI should fulfil this role, as the this department has wider responsibility for asset management issues on the Island, however it would be expected that the DoI would have less direct control than it currently does once the board of directors is in place.

Safety

8.7.8 It is expected that the railway would be able to continue to operate safely and meet all required standards.

Delivery

8.7.9 The rationale for a move to an Arm's length Company would be to place a greater emphasis on revenue generation and development of the railway as a central part of an enhanced tourism offer on the Island, helping to align Visit Isle of Man's aspirations for growing the tourism economy.

8.7.10 This may result in targeted investment in new facilities and the enhancement of capacity. It may also facilitate a shift in perspective on the balance between costs and capacity within individual days and across the season as a whole.

Finance

8.7.11 Subvention will continue to be required, however with more emphasis on marketing, promotion and revenue generation and management it may be possible to further reduce the level of subvention required. The level of subvention would still be set by government, but with input from both DfE and DoI, taking guidance from the Board of Directors. The level of subvention should be linked to an anticipated level of train services to be operated.

8.7.12 A focus on ancillary revenue in particular could have a non-marginal impact on income and thus the need for subvention.

Capital

8.7.13 The process for obtaining capital funding would remain as it does now. In the short term the uncompleted programme of renewals investment should continue. Over time the type of capital investment and the business cases required to support it may change in character with a period of investment in resilience and enhancements, rather than in renewals.

8.7.14 An immediate task for the new structure would be to lead the development of a 10 year strategy for the railway, and using the outputs of the strategy devise a capital programme supported by evidence of the value of the planned investments.

Marketing

8.7.15 Greater input from Visit Isle of Man and DfE opens opportunities to develop marketing and promotion through a closer working relationship with Visit Isle of Man and Manx National Heritage. The railways experience of marketing would help make this a two way

relationship whilst the removal of silos and greater coordination will help to promote the Island more widely helping support the visitor economy as a whole

8.8 Summary

8.8.1 Based on a review of the available options we believe that maintaining the railways in public ownership is the most appropriate way forward, given the scale of the rail network, and the ongoing need for subvention. Moving the railways to operate as an Arm's Length Company would help to provide a greater emphasis on revenue growth, marketing and further increasing value of the railways to the wider economy of the Island.

9. CONCLUSIONS & RECOMMENDATIONS

9.1.1 This review has been undertaken to address terms of reference developed by the DoI. The recommendations below are direct responses to the Terms of Reference. In addition to the very specific recommendations we also set out below some general recommendations based on our observations and analysis whilst undertaking this review.

9.2 General Recommendations & Observations

9.2.1 During the preparation of this report, SYSTRA undertook both stakeholder engagement and public consultation work, supported by site visits to the Island. This highlighted the passion and enthusiasm that exists for the railways both amongst the general public, supporters groups and railway staff.

9.2.2 It is also clear that the railways have continued to positively progress across a number of areas since the previous review undertaken in 2018, despite the challenges posed by the COVID-19 pandemic. Since around 2010 the railways can be seen to have been in a protracted period of recovery from sustained underinvestment. This phase is beginning to draw to a close with an enhanced infrastructure and a good understanding of costs.

9.2.3 The railways now need to look to their development over the next 10 to 15 years. We recommend that this maintains the understanding of asset condition and costs that allows the railway to be managed in a stable way, but moves towards understanding what is needed to further enhance the visitor experience with the ultimate aim of increasing revenue and passenger numbers. Linked to this are three related recommendations:

Recommendation 1 – Strategy Development

9.2.4 Our first recommendation is that a strategy is produced for the development of the railway over the period to 2040. As part of our review it has become clear that there are many perspectives on how the railway could be developed but there is a lack of a clear, unified vision. In part, this is because the railways have for many years been focussed on moving from a position of reactive to proactive asset management. A clear strategy would articulate how the railway will develop and what this would deliver for the Island's economy.

9.2.5 The development of a strategy would provide reassurance to decisionmakers of the value of the investments being made in subvention and capital investment and evidence how investments will support the economy. Aspects of this review, by providing clarity around, among other issues, the contribution of the railway to the wider economy and the operating and capital cost implications and revenue opportunities of options should provide a foundation for strategy development.

Recommendation 2 – Engagement with Tourist Organisations

9.2.6 A recurring theme that has emerged through stakeholder engagement work is a lack of coordination and engagement between tourist organisations. This is not a specific issue relating to the railways, but a wider issue across the Island, that organisations such as Visit Isle of Man are both aware of, and attempting to address. However, the railways' role in

providing access to leisure attractions and enhancing their leisure offering makes this coordination particularly important. Greater coordination and knowledge sharing between organisations should ultimately lead to a stronger more appealing tourism offer bringing greater tourism spend.

Recommendation 3 – Digital Marketing

9.2.7 An area that urgently needs to be addressed is the digital marketing of the railway. The railway is currently served by a non-descript webpage which forms part of the Bus Vannin website. This provides the basic information required to plan a journey, although the layout is not intuitive.

9.2.8 This compares very poorly to the websites of many other heritage railways which go beyond providing information to instead actively market their services. This is an area that railway management already plan to address but should be brought forward as soon as possible.

9.3 Financial Performance & Benchmarking

Within this section we address the following elements of the terms of reference:

- Identification and analysis of the revenue and capital costs of operating each element of the heritage railways in 2022/2023, and how these: compare between themselves, vary since SYSTRA estimated them in 2018, and stack up against comparator heritage railways elsewhere, with recommendations.
- Benchmarking and other analysis to clarify the appropriate level of investment in the track, rolling stock and the promotion proposition that is needed for a heritage rail network of this type, and how this compares to current investment here.
- Analysis of the nature, extent and justification of the public subvention to heritage railways, and how this compares to any public subvention provided to heritage railways elsewhere, taking into account such things as the availability of UK lottery funding, legacies and other grants.
- Comparison to other heritage railways of fares and other revenue opportunities, such as required car parking, inclusion in travel and leisure cards, and retailing and other revenue raising, and recommendations about pricing and revenue policy.

9.3.1 We have undertaken a detailed review of the costs and revenues associated with the railway and have also undertaken benchmarking works against other heritage railways.

9.3.2 The key conclusions of our analysis are that:

- Subvention has remained constant in real terms since 2018. This is an achievement for the railway as, over this period, inflation in many of the railways cost areas has risen faster than general inflation. Part of the explanation for this relates to public sector pay restraint which is relevant as staff costs represent a large proportion of total costs.
- The railways' operating costs (fixed and variable costs combined) per train mile are lower than many comparator heritage railways. This is partly due to the characteristics of the Island's Railways with narrow gauge steam trains having lower operating costs than standard gauge equivalents, and whilst the MER and SMR are

staff intensive they otherwise have low movement costs; this restricts the savings from timetable reductions. Another point is that many other railways gain more revenue from events and ancillary sources than the IoM Railways do, but these incur their own costs.

- Other heritage railways do incur large staff costs with at least two having costs in excess of £2m per annum. Staff costs tend to be associated with those railways with longer seasons and a greater number of operating days. This highlights that many of these are, like the IoM Railways, significant visitor attractions which are too large to rely entirely on volunteer operation.
- Understanding capital spending on heritage railways is complex. What is clear is that there is a reliance on reserves, fundraising and ad hoc public sector grants. Many railways have avoided the spike in capital spending the IoM has seen through ongoing management and small scale renewals of permanent way, though many railways have periodic urgent fundraising requirements to address renewal of specific items of infrastructure such as bridges. As structures and earthworks age the need for these major renewal projects is increasing. The railways on the IoM are now in a much stronger position than many UK heritage railways, having both a good understanding of asset condition, and benefiting from recent renewals, which should mean that the level of capital spend can be proactively managed going forward.
- The recent changes to full fare ticket prices have brought the IoM Railways into line with the average for heritage railways as a whole.

9.3.3 Based on our analysis, we would make the following recommendations:

Recommendation 4 - Pricing

9.3.4 We have highlighted that full fare tickets are priced in line with other heritage railways. We do however recommend that a conscious decision is made about the pricing of Go Explore multi modal tickets and group ticket discounts. The increase in the cost of Go Explore tickets has not kept pace with the price of full fare tickets, leading to significant erosion of yield per passenger compared to full fare tickets. These tickets do provide an affordable way for tourists to travel around the Island without a car, but a strategic decision needs to be taken on whether these tickets should be retained at a low price to promote sustainable tourism or should see an increase in price to help reduce subvention levels.

Recommendation 5 – Capital Investment

9.3.5 Over the last 20 years, the permanent way of all four railways has seen almost complete renewal. There are still a number of areas where renewal is required but assuming that this work is funded the need for investment in renewals will reduce considerably going forward. The IMR should not require substantial track renewals for 15 years and the MER and SMR should avoid further renewals after the current programme for at least 30 years. Defining an optimal level of capital funding is difficult but there is now a need for a change toward a greater emphasis on enhancements. The detail of spending should be derived as part of the strategy proposed above. However it would cover increases in the operational rolling stock fleet to provide resilience and allow targeted service increases and enhancement to passenger facilities. Capital spending has fallen from £5m per annum to around £2.5m in 2023. Ideally this should be increased again for a small number of

years to allow the track renewals programme to be completed, after which it should reduce to a lower but consistent level.

Recommendation 6 – Ancillary Revenue

- 9.3.6 The railways currently have lower levels of ancillary revenue than comparable heritage railways. This is an area where there is scope to significantly increase revenue, for example through development of more directly operated retail and catering outlets. Doing so would generate additional revenue helping to reduce subvention requirements. It should be recognised that a barrier to achieving this currently is a lack of available funding to help these initiatives. This again is an area that could be developed in a long term revenue- and yield- growth strategy.

9.4 Wider Economic Impacts

Within this section we address the following element of the terms of reference:

- Review and estimation of the true value of heritage railways, and how this compares to the value of heritage railways elsewhere, including measurement of the value of direct and indirect off- and on-Island tourist and other leisure user expenditure.

- 9.4.1 Our analysis of the wider economic impacts of the heritage railways has shown that for every £1 spent in subvention and capital investment there is a benefit to the economy of £2.76. The total direct and indirect impacts on the economy total around £17m each year formed of a mixture spending by visitors and spending by the railway itself. This is another area in which the Isle of Man is unique. The majority of visitors come from off the Island meaning that any visitor spend is new income to the Island economy. This is different to the UK, where whilst heritage railway will generate a similar level of economic impact a larger proportion of visitors will be day trippers (thus spending less) and the spending itself is a transfer within the UK economy rather than a generator of new income to the economy.

- 9.4.2 On the Isle of Man it is important to see the railways as an asset to the economy as well as an important cultural and historic asset. One of the aims of the strategy highlighted in Recommendation 1 would should be to develop a plan to further increase this economic value.

9.5 Organisational Structure & Volunteering

Within this section we address the following element of the terms of reference:

- Consideration of how Department of Infrastructure, Department for Enterprise, Manx National Heritage and other public bodies could or should be involved in heritage railways governance, funding and operations.
- Evaluation of other organisational structures including charity and foundation status, for fundraising and operations, and how the Island’s heritage railways associations and volunteers are involved currently, and could be involved.
- Benchmarking of the terms and conditions of the human resources employed on the Island’s heritage railways and to what extent volunteers could be used.

- 9.5.1 Our review has considered a number of different organisational structures for the railways to understand if there is a case for altering the railways' current structure. This has included considering private sector involvement, operation as a charitable trust and alterations to the current structure of government ownership. Linked to this we have examined the role that volunteers might play in the operation of the railway. This is material to questions on organisational structure as staff costs represents around 70% of the railways operating costs and is therefore the main driver of the need for subvention.
- 9.5.2 A critical point in reflecting on the case for volunteers is the scale of the Island's rail network. The Isle of Man has over 50 times the length of heritage railways per person that the UK does. This fact is salient in understanding our recommendation around volunteering, which in turn drives our recommendation around organisational structure.

Recommendation 7 – Volunteering

- 9.5.3 Our conclusion on volunteering is that there is no role for the use of volunteers in the existing engineering and operational teams. This is based on an analysis of population participation rates for heritage railways in the UK. When translated to the Isle of Man it has been shown that even in the most optimistic scenario the number of volunteers available would be wholly insufficient to operate even a small proportion of current services. This is also backed up by evidence from engagement with the Groudle Glen Railway who confirmed that resourcing sufficient volunteers for their own much smaller operation can at times be challenging, and also from other engagement where it was highlighted that rates of volunteering amongst the population have fallen in recent years. The possible exception to this are operating staff (driver/conductor) for the DBHT, where a small number of staff are required and where a wider pool of volunteers might be sought from those with an interest in horses as well as those with an interest in railways.

Recommendation 8 – Board of Directors

- 9.5.4 We recommend that a Board of Directors be formed to oversee the management and development of the railway. The board would be composed of voluntary directors with representatives from a range of stakeholders such as DfE, DoI, enthusiast and supporters associations, Visit Isle of Man and an independent off-Island representative with experience of heritage railways. The board would be there to provide support to railway management covering a cross section of skills and experience. It would also be responsible for setting the direction and strategy for the railway building on our comments in Recommendation 1.

Recommendation 9 – Organisational Structure

- 9.5.5 Our conclusion around options for organisational structures are that the railways should remain in public ownership. The rationale for this is that the scale of both subvention and capital spending required and the lack of alternative funding sources means the government will have to continue to support the railways. Recommendation 8 to form a board of directors sets the basis for operation of the railways as an arm's length publicly owned company. The railway would still require a parent department within government. With the transition towards a railway looking more firmly at long term business growth and development, having successfully overcome its issues with asset management and condition, it is appropriate for the Department for Enterprise to have a greater role in the

development of the railways. The rationale for this being that the railways have a function in addressing the wider objectives of the DfE. This function could however be delivered through the Board of Directors, with the Department of Infrastructure continuing to act as parent department with ultimate responsibility for infrastructure and operational liabilities.

9.6 Network Development

Within this section we address the following element of the terms of reference:

- Evaluation of whether the heritage railways could be used to provide regular passenger and freight services given the costs and benefits.
- Analysis of the cost benefit viability of each major section of the railway on a standalone and combined basis, including evaluation of the impact of the length of the DBHT and extending MER operations to the War Memorial.
- Evaluating the appropriateness of the timetable, including in particular the operating period and the number of scheduled services for each element of the heritage railways.
- Consideration of the alternative use of any railway assets found to be no longer required.

9.6.1 Our work has reviewed a range of options for the rail network testing both development and curtailment. The recommendations emerging from these tests are summarised below:

Recommendation 10 – Network Value

9.6.2 Our review of the impact of truncating parts of the network has shown that there is no case for the withdrawal of services between Castletown and Pot Erin; it has been shown that new disbenefits would be generated from the loss of the service while the cost savings were relatively small. Whilst on Laxey – Ramsey although it was shown that there would be a small benefit from withdrawing services this excluded the impact on visitor spending. Despite assuming active travel provision replacing the service would retain some of the visitors it is assumed the demand for cycle trips is lower than that for train travel and therefore the impact on visitor spending would be negative. As this section is the most scenic part of the MER it would be expected that withdrawal of the route to Ramsey would result in a fall in visitor numbers to the Island and reduction in visitor spend. If a strategy of immediate reduction in subvention is sought, this truncation would offer significant cost savings. However, if a long term strategy of more closely aligning the railway with the visitor economy was decided on this could be undermined by closure of a substantial portion of easily-maintainable good quality track.

Recommendation 11 – Laxey – Ramsey Cycle track

9.6.3 Part of our brief was to consider alternative options for development. As a case study we examined the conversion of the Laxey – Ramsey route to single track operation with passing loops to provide space for a parallel cycle track. This option allows for some ongoing track maintenance savings while retaining and enhancing the green travel benefits of the railway, although at the cost of additional capital expenditure. Although only indicative business case work, our findings suggest that this would not represent

value for money unless usage across the year averaged more than 475 cycle trips per day. Given the seasonal nature of tourism on the Island we believe that this proposal is not viable unless significant cost savings can be made in construction compared to the indicative costs assumed here.

Recommendation 12 – A Ramsey – Douglas Commuter Service

- 9.6.4 Although the railways are evidently much more important as visitor attractions or transport for leisure travellers than as regular public transport, the low marginal cost of an additional service justified appraising the value of introducing two morning and two evening commuter services on the MER. The case appraised was for a new electric train to provide these services, with additional points at Derby Castle to allow the service to run closer to the centre of Douglas. 88 passengers per service would be required to return positive value for money – an ambitious but plausible number of passengers.

Recommendation 13 – DBHT reinstatement to War Memorial and Sea Terminal

- 9.6.5 Our modelling work has shown that the financial case for reinstatement of the DBHT to either the War Memorial or the Sea Terminal would require very large increase in passenger numbers to avoid a further increase in subvention, based on current operating methods. There is clearly a strategic case for reinstatement to the Sea Terminal. This is an example where the change in emphasis around capital spending could produce benefits, with the Sea Terminal being utilised as part of the railways visitor facilities perhaps prior to investment in facilities at Derby Castle.

10. **APPENDIX A: TERMS OF REFERENCE (SEPARATE DOCUMENT)**
11. **APPENDIX B: SURVEY REPORT (SEPARATE DOCUMENT)**

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