



# STRATEGIC TRANSPORT PROJECTS REVIEW

PROTECTING OUR CLIMATE  
AND IMPROVING LIVES



## Appendix I: Recommendation Appraisal Summary Tables

December 2

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# 1. Detailed Appraisal Summary

**An ‘Appendix I – Recommendation Appraisal Summary Tables (ASTs) Explanatory Note’ accompanies this AST.**

## 1.1. Recommendation 11 – Clyde Metro

### Recommendation Description

This recommendation considers the development of a new level of public transport provision within the Glasgow City Region badged under the term ‘Clyde Metro’. This would be a system focused on Glasgow and the surrounding areas of East Dunbartonshire, East Renfrewshire, North Lanarkshire, Renfrewshire, South Lanarkshire and West Dunbartonshire.

The full operational range of Clyde Metro will be determined by individual line/route characteristics informed by ranges established through a benchmarking exercise. In terms of specific modes, the system may include one or more of bus rapid transit, tram, light rail and/or metro rail.

Clyde Metro would complement and integrate with the Region’s existing rail and bus and active travel networks. The system may include wholly new alignments, reuse of former disused rail infrastructure and/or involve the conversion of existing rail alignments.

Clyde Metro would include areas where public transport is more limited and include cross-region routes along key corridors of demand, including where congestion impacts on existing bus services. This would improve the accessibility of public transport in areas that are more disadvantaged and where the population has been identified as experiencing higher levels of transport poverty to promote more reliable public transport, increase travel choices to key destinations (employment, education, healthcare and other services) and help to address inequalities.

The system would also help facilitate a ‘step-change’ in spatial accessibility and cross regional connections, including access to the strategic sites set out within Clydeplan Strategic Development Plan as well as developments of national significance identified in the Revised Draft NPF4 such as Clyde Mission.

A conceptual map of Clyde Metro has been included as Annex A. It shows the transit corridors that are being proposed for inclusion as part of Clyde Metro.

## 1.2. Relevance

### Relevant to public transport users and non-users within the Glasgow City Region

Clyde Metro is aimed to serve and improve connectivity within the Glasgow City Region, through the development of a new modal tier which would provide high quality public transport links to key hubs (for example, city centre, hospitals [such as QEUH], major education facilities, key employment centres, retail hubs (such as Silverburn and Braehead), and major leisure/sports facilities), and major transport hubs (such as Central and Queen Street railway stations, Glasgow Airport and suburban interchanges), together with unserved or underserved areas such as Easterhouse and Newton Mearns.

The region has approximately one third of the Scottish population and contributes approximately one third of the Scottish GVA but also suffers from high levels of deprivation including transport poverty, higher number of benefit claimants, lower educational attainment relative to other regions and high levels of economic inactivity

[Unaffordable and unreliable local public transport is limiting access to job opportunities for residents of low-income neighbourhoods in the Glasgow City Region, according to the independent Joseph Rowntree Foundation \(JRF\)<sup>i</sup>](#). In their report considering tackling transport-related barriers to employment in low-income neighbourhoods, the JRF note that ‘transport is a key barrier to employment for many residents living in low-income neighbourhoods. All too often, public transport is seen as something that constrains rather than enables a return to work.’

Clyde Metro would have a key role to play in tackling the social exclusion throughout the Glasgow City Region, currently contributed to by transport provision which can act as a barrier, limiting access to education and employment opportunities. Clyde Metro is itself a national development and would also serve to [support national-level priorities such as Clyde Mission<sup>ii</sup>](#), to help drive sustainable and inclusive growth throughout both city and region and improved access to healthcare and leisure facilities. It would provide significant capacity for modal shift and help reduce greenhouse gas emissions and improve air quality.

Clyde Metro would also offer relief for the heavy rail network freeing rail capacity for longer distance journeys and allowing more efficient provision of fixed infrastructure public transport services in the urban area.

### 1.3. Estimated Cost

#### >£5 billion Capital

Indicative capital costs per kilometre have been collated for similar schemes across the UK.

Bus Priority Fund commitments by the Scottish Government to investment in bus priority could potentially be used to deliver bus priority schemes delivered as part of this recommendation. Local factors play an important role in the overall cost of a scheme therefore these costs can vary significantly between regions and schemes. The costs of the Metro Rail Transit vary substantially due to the possibility of the Metro running underground which significantly increases costs. It is likely that capital costs for this recommendation will be significantly above the £5 billion level on an overall multi-year programme.

It is anticipated that Clyde Metro could potentially generate self-sustaining revenue streams once the system is in operation, although an element of revenue support may be required in the early years.

### 1.4. Position in Sustainable Investment Hierarchy

**Targeted Infrastructure Improvements**

This recommendation would also contribute to nine of the 12 NTS2 outcomes, as follows:

- Provide fair access to services we need;
- Be easy to use for all;
- Help deliver our net-zero target;
- Adapt to the effects of climate change;
- Promote greener, cleaner choices;
- Get people and goods to where they need to get to;
- Be reliable, efficient and high quality;
- Be safe and secure for all; and
- Help make our communities great places to live.

### 1.5. Summary Rationale

**Summary of Appraisal**

	TPO					STAG					SIA				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Low Scenario	++	+++	++	+++	++	+	++	++	+++	+++	+	+++	0	+++	+++
High Scenario	++	+++	++	+++	++	+	++	++	+++	+++	+	+++	0	+++	+++

This recommendation makes an overall positive contribution to all of the STPR2 Transport Planning Objectives (TPOs) and STAG criteria. It particularly contributes strongly to the objectives relating to improving the affordability and accessibility of public transport. It would also positively contribute towards the majority of the Statutory Impact Assessment (SIA) criteria. There would be no direct impact on island communities, and hence this has been scored as neutral.

In terms of deliverability, the Clyde Metro is considered feasible to construct and deliverable, albeit there would likely be some challenges at particular locations. These would be addressed accordingly through the design development process as the exact routes and modes of Clyde Metro are determined. Costs of the system are likely to be substantial although considering the individual elements of Clyde Metro, it will cost significantly less to deliver the BRT elements, which will offer greater flexibility in terms of both implementation and routing of bus-based services when compared to the light and heavy metro elements.

Public acceptability is likely to be mixed with higher support from potential users and those directly impacted by the construction and/or operation of the system potentially less supportive.

This recommendation is expected to have a major positive impact on the EqIA and FSDA, and on the CRWIA. The impact on island communities is expected to be negligible and therefore scored as neutral. The SEA impact is anticipated to be positive at this stage although work would be required as the scheme progresses to ensure this was the case:

at this stage a minor positive score has been given.

Details behind this summary are discussed in Section 3, below.



## 2. Context

### 2.1. Problems and Opportunities

This recommendation could help to tackle the following problems and opportunities:

#### Relevant Problem & Opportunity Themes Identified in National Case for Change

- **Poverty and Child Poverty:** public transport is very important to those on low incomes, yet in many areas of high social deprivation public transport options can be limited and relatively expensive. A key challenge is providing fair and affordable access to the services people need.
- **Global Climate Emergency:** the Scottish Parliament committed to an ambitious target of net zero emissions by 2045 and transport needs to play its part. Transport is currently Scotland's largest sectoral emitter, responsible for 37% of Scotland's total greenhouse gas emissions (greenhouse gas emissions encompass CO<sub>2</sub> emissions)<sup>iii</sup> in 2018 ([National Atmospheric Emissions Inventory 1990-2017](#))<sup>iv</sup>. Our transport system needs to minimise the future impacts of transport on our climate.
- **Air Quality:** transport, and road transport in particular, remains a significant contributor to poor air quality. Air pollution increases the risks of diseases such as asthma, respiratory and heart disease, particularly for those who are more vulnerable. Air quality is often worse in areas of deprivation and is a health inequality issue.
- **Decline in Bus Use:** bus is particularly important to areas which are not served by the rail network, including much of rural Scotland. It can be an important element in multi-modal journeys and is a sustainable and space-efficient mode of travel. [Reducing passenger numbers risks driving down revenues and making some services unviable, resulting in cancellations and, in some cases, communities being isolated](#)<sup>v</sup>.
- **Labour Markets:** people often need transport to access employment, education and training and therefore help reduce the numbers out of work and support Scotland's ambitions for growth. Transport can ensure that the skills and experience of those in the labour force are effectively matched with the needs of businesses, helping to increase incomes and improve productivity.
- **Reliability:** without intervention, forecast increases in traffic volumes on the road network will impact negatively on reliability through increased congestion and more roadworks as greater pressure is placed on the operational efficiency of the network. [Reliability can also be an issue on the rail network](#)<sup>vi</sup>.
- **Service Capacity:** the capacity of transport services can be a key challenge: rail station capacity; rail network capacity; Park and Ride capacity for stations; freight capacity by rail and ferry; passenger capacity for ferries including for inter-island services. This has a strong indirect or implicit linkage to issues around affordability, accessibility, connectivity and congestion.

For further information about problems and opportunities relevant to the Glasgow City Region, please refer to [Initial Appraisal: Case for Change Glasgow City Region](#)<sup>vii</sup>

## 2.2. Interdependencies

This recommendation has potential overlap with other STPR2 recommendations and would also complement other areas of Scottish Government activity.

### Other STPR2 Recommendations

- Behavioural change initiatives (6)
- Provision of strategic bus priority measures (14);
- Edinburgh/Glasgow – Perth/Dundee rail corridor enhancements (17);
- Improved public transport passenger interchange facilities (21);
- Framework for the delivery of mobility hubs (22);
- Smart, integrated public transport ticketing (23);
- Major station masterplans (43); and
- High speed and cross-border rail enhancements (45).

### Other areas of Scottish Government activity

- [Climate Change \(Emissions Reduction Targets\) \(Scotland\) Act 2019](#)<sup>viii</sup> - achieving net zero emissions by 2045;
- [Climate Change Plan 2018-32 Update](#)<sup>ix</sup> - commitments to reduce private vehicle kilometre by 20% by 2030;
- [National Transport Strategy \(NTS2\)](#)<sup>x</sup> - the Sustainable Travel Hierarchy and the Sustainable Investment Hierarchy;
- [Bus Partnership Fund](#)<sup>xi</sup>;
- [Revised Draft Fourth National Planning Framework](#) (Revised Draft NPF4)<sup>xii</sup> National Development 6: Urban/Mass Rapid Transit Networks, 18: High Speed Rail and 13: Clyde Mission;
- [Infrastructure Investment Plan 2021/22-2025/26](#)<sup>xiii</sup>; and
- [The Place Principle](#)<sup>xiv</sup>

### 3. Appraisal

This section provides an assessment of the recommendation against:

- STPR2 Transport Planning Objectives (TPOs);
- STAG criteria;
- Deliverability criteria; and
- Statutory Impact Assessment criteria.

The seven-point assessment scale has been used to indicate the impact of the recommendation when considered under the ‘Low’ and ‘High’ Travel Behaviour Variant scenarios (which are described in Appendix F of the Technical Report).

#### 3.1. Transport Planning Objectives

1. A sustainable strategic transport system that contributes significantly to the Scottish Government’s net-zero emissions target	
Low Scenario	High Scenario
++	++

The analysis contained in the [Glasgow City Region Case for Change report](#) (GCR CfC)<sup>xv</sup> and benchmarking against comparable cities in Europe, demonstrated a gap in the public transport hierarchy. This leads to a higher private car mode share in the Region than for example in the Edinburgh and South East Scotland Region. Additionally, a lack of cross region connections came up often through the stakeholder engagement as a barrier to public transport used.

Clyde Metro provides an opportunity to target people who currently choose to use a car due to either a perceived or actual lack of effective alternatives. It would provide a connected public transport network by offering more direct routes between areas within the Region. More significantly however, it would also facilitate any required interchange in a more efficient manner through formal interchange locations, as shown on the Conceptual Plan (Annex A).

Removing vehicles from the road network would reduce emissions, helping to address the climate emergency and contributing to Scottish Government’s net zero emissions target. It is envisaged that modes used by the system will be electric/battery/hydrogen powered from the outset, delivering low emission travel.

This recommendation is therefore expected to have a moderate positive impact on this objective in both Low and High scenarios.



**2. An inclusive strategic transport system that improves the affordability and accessibility of public transport.**

Low Scenario	High Scenario
+++	+++

One priority for Clyde Metro is to target areas that are not currently served by the commuter rail network and are relatively poorly linked by other transport modes to key employment, education and retail hubs. When travelling to regional employment destinations and key services, such as education and healthcare, a lack of a competitive public transport option means that for a significant amount of the Region's population, travel by private car is more attractive. Many of these areas correlate with higher levels of deprivation, low levels of employment and lower educational achievement, such as Castlemilk and Drumoyne.

As Clyde Metro would improve cross-boundary connectivity, it is expected that this recommendation would deliver a lower cost travel choice when compared to travel by private car. The system would be developed to integrate with existing ticketing arrangements and for different modes to be affordable to all, to make sustainable travel choices more attractive than travel by private car for a substantial number of trips within the Region.

Assuming an affordable fare structure is implemented, this recommendation is expected to have a major positive impact on this objective in both Low and High scenarios albeit the cost difference between public transport and private car are likely to be smaller in the High Scenario.

**3. A cohesive strategic transport system that enhances communities as places, supporting health and wellbeing.**

Low Scenario	High Scenario
++	++

Clyde Metro has the potential to improve physical and mental health, and social connection and wellbeing by better connecting communities with opportunities for employment, education, healthcare and leisure. It will also present increased opportunities to support placemaking and will improve regional connectivity with increased opportunity for interchange.

Delivering a mass transit system has the potential to increase uptake in travel by sustainable modes and reduce dependence on travel by private car throughout the Region, leading to improved local air quality and streetscape environments. This can, in

turn, make communities more attractive for walking, wheeling and cycling with associated health and well-being benefits.

There would also be benefits in terms of placemaking as a result of the reduction in car-based travel impacting on communities, although these may be of a more limited impact when compared to the potential health benefits.

Clyde Metro would though involve new infrastructure which may impact on communities during construction and operation. This would form part of considerations as the design and development of specific elements of Clyde Metro progressed.

This recommendation is expected to have a moderate positive impact against this objective in both Low and High scenarios.

**4. An integrated strategic transport system that contributes towards sustainable inclusive growth in Scotland.**

Low Scenario	High Scenario
+++	+++

ESES MT is one of the national developments set out in the Revised Draft NPF4. It would enhance the public transport offering in the Region, thereby improving access to education and healthcare services as well as employment catchment areas, for both individuals and businesses thereby supporting sustainable economic growth. The system would complement and integrate with the Region’s current bus, tram, heavy rail and active travel networks. The system would also connect with existing and new mobility hubs/transport interchange locations in the Region.

By [integrating Clyde Metro with emerging growth programmes such as Clyde Mission and Innovation Zones<sup>xvi</sup>](#), as well as existing rail, bus and active travel modes, the system could provide a ‘step-change’ in spatial accessibility that will significantly contribute to sustainable economic growth.

[Glasgow City Council is the local authority with the highest level of deprivation in Scotland: 45% of its data zones are in the 20% most deprived nationally.<sup>xvii</sup>](#) [Current issues surrounding access to employment in the Glasgow City Region](#) offers a significant opportunity for improvement under this recommendation.<sup>xviii</sup>

Overall, this recommendation is expected to have a major positive impact on this objective in both Low and High scenarios.

**5. A reliable and resilient strategic transport system that is safe and secure for users.**

Low Scenario	High Scenario
++	++

This recommendation would provide a step-change in public transport capacity and new infrastructure. It would focus on key corridors of demand as well as where congestion impacts on bus services and where the public transport offer is more limited. It is therefore envisaged that Clyde Metro will add significant resilience to the region’s public transport network by providing additional public transport choices within the region.

In addition, the incorporation of new technologies within modern public transport systems, tends to result in higher levels of reliability. Services operating on dedicated routes that are segregated from general traffic would further improve the reliability of public transport in the Region. New infrastructure also gives the opportunity to include modern safety and security systems from the outset, improving both actual and perceived safety and security for its users.

Overall, this recommendation is expected to have a moderate positive impact on this objective in both Low and High scenarios.

**3.2. STAG Criteria**

1. Environment	
Low Scenario	High Scenario
+	+

See Strategic Environmental Assessment (SEA) below.

This recommendation is expected to have a minor positive effect on this criterion in both the Low and High scenarios.

<b>2. Climate Change</b>	
<b>Low Scenario</b>	<b>High Scenario</b>
<b>++</b>	<b>++</b>

Clyde Metro would be expected to encourage significant modal shift from car to public transport, and also to provide a public transport offering with lower emissions. By utilising electric or hydrogen drive trains on public transport services, emissions would reduce even further when compared to using fossil fuels. Clyde Metro therefore has the potential to significantly reduce greenhouse gas emissions.

There is not expected to be any impact on vulnerability to the effects of climate change or potential to adapt to the effects of climate change. However, promoting a mode shift to more sustainable means would contribute to reducing emissions and the impacts of climate change. Consideration would also be given to the methods and materials used in the construction of the Clyde Metro to mitigate environmental impacts.

This recommendation is therefore expected to have a moderate positive impact on this criterion in both Low and High scenarios.

<b>3. Health, Safety and Wellbeing</b>	
<b>Low Scenario</b>	<b>High Scenario</b>
<b>++</b>	<b>++</b>

The principal safety benefits from Clyde Metro will be in delivering modal transfer from road trips that take place within the conurbation area, but are too long to be catered for by walking or wheeling (and for some individuals by cycling). These benefits would be generated by the reduction in vehicle collisions, including those involving more vulnerable road users. The level of these is directly related to the level of modal-shift but is unlikely to be of major significance.

In addition to these benefits, Clyde Metro could provide enhancements to the safety of heavy rail by providing relief to congested sections of the network; both in terms of train movements and passenger flows. Again, however, these would not be anticipated to be of a significant level given the high level of safety already inherent in the rail system.

Safety would require attentive design considerations in terms of BRT and/or LRT modes and walking, wheeling and cycling interactions.

This recommendation will involve significant new infrastructure and vehicles and include best practice security measures, which is likely to improve perceived safety. It is also anticipated that public transport uptake would increase significantly, making stops and stations busier and less isolated, thereby improving security.

There may be some health benefits from improved air quality due to reduced emissions attributed to modal shift from private vehicles, and this can make communities more attractive for walking and cycling, with associated benefits for health and wellbeing.

Access to health and wellbeing infrastructure may also improve slightly due to improved public transport provision. In addition, Clyde Metro also has the potential to improve physical and mental health, and social connection and wellbeing, by increasing the access opportunities to non-healthcare related activities.

There is potential for negative impacts during construction and operation of the system, including on visual amenity, for example impacts from the construction footprint of any new transport infrastructure. Further assessment would be required to identify potentially significant location-specific environmental impacts and mitigation where appropriate.

Overall, this recommendation is expected to have a moderate positive impact on this criterion in both Low and High scenarios.

#### 4. Economy

Low Scenario	High Scenario
+++	+++

Clyde Metro would provide greater travel opportunities within the region, with potential to provide significant travel time reliability and savings, via the provision of segregated (or partially segregated) and direct rapid transit services between the key hubs, as well as improving connectivity to underserved areas.

Development and implementation of the system would help improve connectivity across the region, enhancing both the city and region’s attractiveness as a place to work, live and visit, supporting sustainable economic growth (Annex A).

Clyde Metro would provide wider economic benefits for the Scottish economy.

Development and implementation of the system would generate employment and work for Scottish people and businesses. In addition, the improvements in productivity generated by reduced travel times and a more competitive transport environment would also generate wider benefits.

Overall, this recommendation is expected to have a major positive impact on this criterion in both Low and High scenarios.

<b>5. Equality and Accessibility</b>	
<b>Low Scenario</b>	<b>High Scenario</b>
<b>+++</b>	<b>+++</b>
<p>Clyde Metro would provide an opportunity to improve public transport accessibility and connectivity within the region. The provision of a mass transit system would improve access to areas which currently have poor transport connectivity; improving public transport access to key destinations within and around the city; and integrating with major transport hubs such as Glasgow Central and Queen Street railway stations, Glasgow Airport and suburban interchanges. This recommendation would not directly impact on active travel network coverage but would be developed to integrate with active travel networks.</p> <p>In terms of comparative access, Clyde Metro would particularly benefit people either without access to a private car for travel (or those who choose not to drive) as well as those unable to drive. It would also benefit those with poor access to the public transport network; and people living in areas where public transport service provision does not enable them to access employment, healthcare, education and leisure destinations directly and quickly. Accessible and secure system design would also benefit more vulnerable and mobility impaired users reliant on public transport. In addition, Clyde Metro has the potential to improve physical and mental health plus social connection and wellbeing by increasing access opportunities to leisure and recreation activities as well as employment, education and healthcare.</p> <p>Inclusion would be further promoted with infrastructure and vehicles, by definition, being required to be compliant with inclusive design standards.</p> <p>The funding and revenue model would need to be designed with affordability of Clyde Metro to all users considered, to deliver a competitive alternative to the car.</p> <p>Also refer to EqIA/ICIA/FSDA/CRWIA Assessment overleaf.</p> <p>This recommendation is therefore expected to have a major positive impact on this criterion in both Low and High scenarios.</p>	



### 3.3. Deliverability

#### 1. Feasibility

At this stage, it is considered that the various elements for Clyde Metro would be technically and operationally feasible to build. However, there are a number of significant planning and construction risks and uncertainties associated with this recommendation.

Depending on route alignments there is potential for conversion of existing/abandoned railway alignments and reallocation of road space on wide radial road alignments. The City Centre Street grid is well suited to on-street operations although it is noted that there is varied topography in the City Centre and there may be some constraints regarding turning radii which will need consideration at the appropriate stage. Conversions of heavy rail services/alignment will require careful phasing. Any bus rapid transit elements are likely be easier to deliver depending on route alignments.

#### 2. Affordability

The Clyde Metro would be a major capital investment programme. The scale and capital costs will be one of the largest Scotland has ever seen. It is also likely that some revenue support will be required. All of which will require meticulous programme management and well defined project profiling.

Likely to be delivered in multiple phases over a significant time period (for example, Manchester Metrolink has developed over 30 years and continues to be developed further), Clyde Metro may involve a mix of modes ranging from bus rapid transit through to heavy metro; with a consequent range of implementation (including operation) costs. However, metro-type modes have the potential to negate the need for costly investment in increasing heavy rail capacity and at the same time delivering wider benefits.

#### 3. Public Acceptability

Investment in high quality public transport facilities generally enjoys a high degree of public support. Where new systems have been introduced (for example, Copenhagen Metro, Manchester Metrolink), they have proven popular and there has been substantial public pressure for system expansion. On an individual line basis, there are likely to be specific impacts that will require mitigation. However, it is noted that not all metro or tram systems enjoy widespread public support as evidenced in Edinburgh, especially during the construction phase.

It is recognised that many people will be very supportive of Clyde Metro, however it is also acknowledged that the disruption it may cause during construction could lessen the public acceptability.

### 3.4. Statutory Impact Assessment Criteria

#### 1. Strategic Environmental Assessment (SEA)

Low Scenario	High Scenario
+	+

Clyde Metro is likely to result in positive effects on the SEA objectives related to greenhouse gas reduction and climate adaptation (SEA Objectives 1 and 2) and air quality (Objective 3) due to enhancing the public transport network and promoting a modal shift to more sustainable transport options. It is envisaged that mass transit modes will be electric/hydrogen powered from the outset, helping to improve air quality and reduce greenhouse gas emissions. Positive effects are anticipated on quality of life and sustainable accessibility (Objective 4) due to an expected increase in sustainable access to services and leisure opportunities as well as improving safety (Objective 7). The significance of these effects is dependent on the alternatives being safe, affordable, and available for all users in order to fully realise the potential for mode shift through the region from private car to public transport (Objective 8).

There is potential for negative environmental effects during construction and operation of the improvements, particularly on the water environment (Objective 10), biodiversity (Objective 11), cultural heritage (Objective 13) and landscape and visual amenity (Objective 14), for example impacts from the construction footprint of any new transport infrastructure.

In terms of construction, there is an opportunity to employ methods for decarbonisation of construction through innovation in design, procurement and construction methods identified as part of the design and development process whilst adhering to relevant standards. Similar work undertaken to date in exploring options for decarbonising the construction of other schemes could be used as a basis for developing these methods.

In addition, significant quantities of materials and construction-related trips will be required. Depending on the source and type of materials/natural resources used, there is the potential for negative impacts on natural resource requirements (Objective 9).

Modal shift to more sustainable modes of transport will have a positive effect on greenhouse gas emissions and air quality as well as potentially improve human health. Construction of any new infrastructure is likely to have a negative effect on other aspects of the environment. Further environmental assessment will be required to identify potentially significant location-specific environmental impacts and mitigation where appropriate.

Therefore, this recommendation is expected to have a minor positive effect on this criterion in both the Low and High scenarios.

<b>2. Equalities Impact Assessment (EqIA)</b>	
<b>Low Scenario</b>	<b>High Scenario</b>
<b>+++</b>	<b>+++</b>
<p>New stations/stops will require to be fully accessible and there will be an opportunity with new infrastructure to plan and design step-free access. Increased accessibility to public transport services will bring benefits to a wide range of people with protected characteristics who are more reliant on public transport services, such as older people, the elderly, children, young people, women and people from certain ethnic minority groups.</p> <p>The extent to which these benefits of Clyde Metro will be realised for protected characteristic groups accessing services will depend on the location of the mass transit network and its proximity to employment, education, healthcare and other services as well as the affordability of the services in comparison to car use or existing public transport options.</p> <p>This recommendation is therefore expected to have a major positive impact on this criterion in both Low and High scenarios.</p>	

**3. Island Communities Impact Assessment (ICIA)**

Low Scenario	High Scenario
0	0

This recommendation is not considered directly or indirectly relevant to island communities.

This recommendation is therefore scored neutral on this criterion in both Low and High scenarios.

**4. Children’s Rights and Wellbeing Impact Assessment (CRWIA)**

Low Scenario	High Scenario
+++	+++

Depending on final alignments and routes, Clyde Metro may provide improved access to education for children and young people. New routes/alignments may provide enhanced opportunities and access to education facilities (including over a relatively short distance for more local trips), in the context of a modern, safe and reliable system (Annex A).

However, the extent to which the benefits of Clyde Metro will be realised for children and young people will depend on the location of the mass transit network and affordability in comparison to car use or existing public transport options.

By encouraging modal shift from private car trips to public transport this recommendation could contribute to a reduction in harmful transport emissions and improved local air quality in communities across the Region. This would benefit children and young people who are more vulnerable to the adverse health impacts of traffic-related emissions. By reducing the volume of road traffic, safety could also be improved which would benefit children who are more vulnerable to fear of road danger

This recommendation is therefore expected to have a major positive impact on this criterion in both Low and High scenarios.

**5. Fairer Scotland Duty Assessment (FSDA)**

Low Scenario	High Scenario
+++	+++

Work contained in the Glasgow City Region Case for Change report demonstrates the challenge, particularly in the City of Glasgow, around SIMDs and the significant number of people who are at a socio-economic disadvantage. The need to improve connectivity and

accessibility to higher quality public transport for many of these areas will be a major driver for the development of routes. It is anticipated that Clyde Metro will have a net positive benefit in this regard and will improve access to employment opportunities and reduce socio-economic disadvantage.

This recommendation would provide an accessible and safe public transport system to improve regional cross-boundary connectivity to help overcome inequalities and address where higher levels of transport poverty are experienced. However, the extent to which the benefits of mass transit would be realised for socio-economically disadvantaged groups would depend on the location of the mass transit network and the affordability of the services in comparison to car use and existing public transport options.

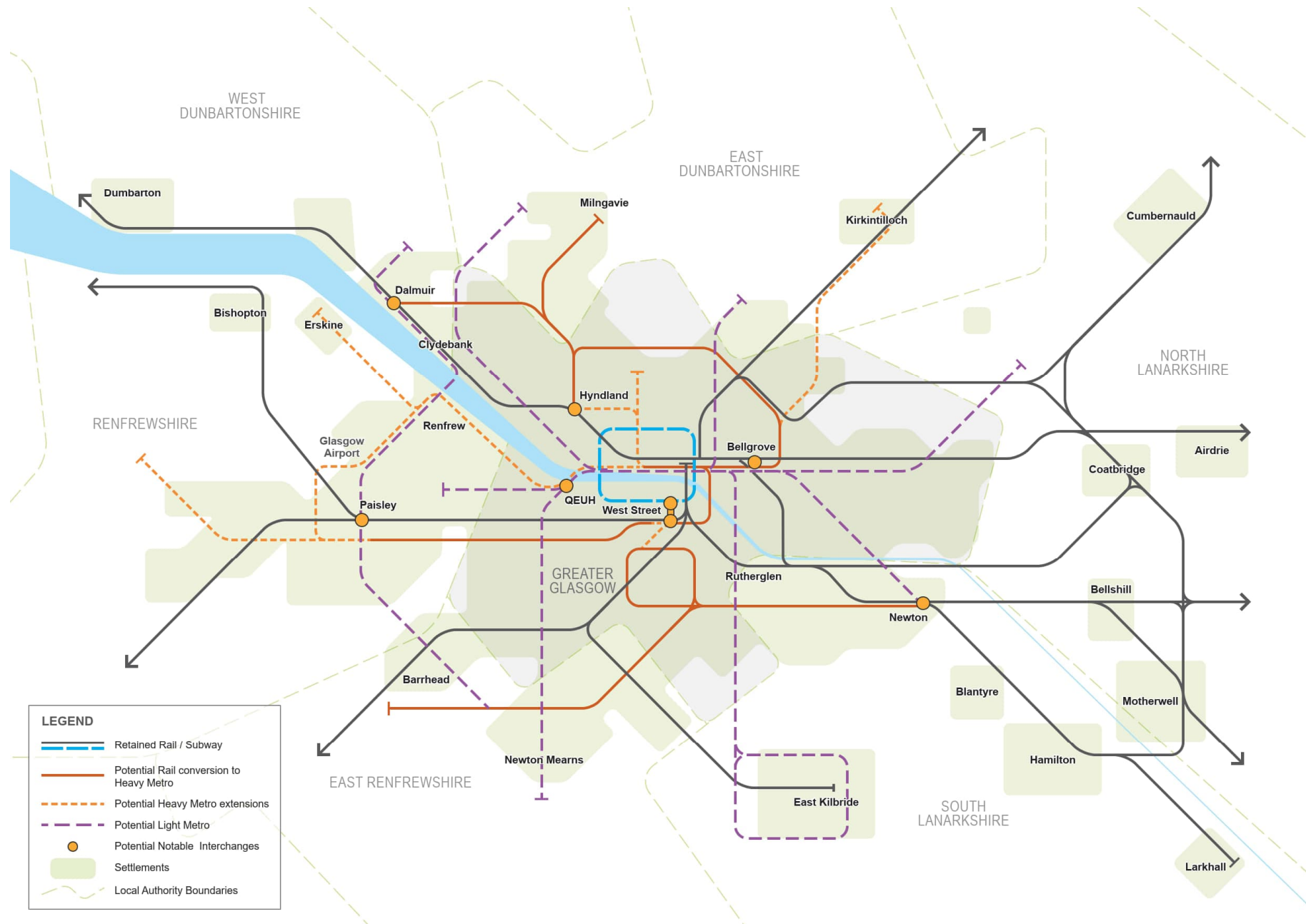
However, it is recognised that the funding and revenue model would need to be designed with the affordability of Clyde Metro to all users considered, to deliver a competitive alternative to the car. This could have positive impacts in helping to reduce inequalities of outcomes caused by socio-economic disadvantage (such as in those areas suffering from transport poverty or lower income areas).

This recommendation is therefore expected to have a major positive impact on this criterion in both Low and High scenarios.

## Annex A – Conceptual plan of Clyde Metro



Appendix I: Appraisal Summary Table – Recommendation 11 Clyde Metro



## References

- <sup>i</sup> Joseph Rowntree Foundation, Press release: Families in the Glasgow locked out of jobs market by ‘unaffordable and unreliable’ local transport, 2018, <https://www.jrf.org.uk/press/families-glasgow-locked-out-jobs-market>
- <sup>ii</sup> Scottish Government, Clyde Mission, 2020.
- <sup>iii</sup> Greenhouse gas emissions encompass CO<sub>2</sub> emissions
- <sup>iv</sup> National Atmospheric Emissions Inventory 1990-2017
- <sup>v</sup> Trends in Scottish Bus Patronage, KPMG for CPT Scotland, 2017
- <sup>vi</sup> ORR, Public Performance Measure – Table 3113, 2020-21 Q1, <https://dataportal.orr.gov.uk/statistics/performance/passenger-rail-performance/table-3113-public-performance-measure-by-operator-and-sector/>
- The Public-Performance-Measure (PPM) is the standard industry measure for reporting performance. It counts all trains which arrive within 5 minutes of the scheduled performance time (ten minutes for the long-distance Train Operating Companies), compared with the number of trains planned to run. The Office of Rail and Road’s data reported for Scotland are for ScotRail services only, which covers 95 percent of the trains run in Scotland.
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