The Edinburgh Glasgow Improvement Programme

Strategic Environmental Assessment (SEA)

Consultation Document

October 2013
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1.0 Introduction

1.1 Background

1.1.1 The Edinburgh Glasgow Improvement Programme (EGIP) is a comprehensive programme of improvements to central Scotland’s railway infrastructure, rolling stock and service provision which will provide a major boost to the wealth of Scotland and its long term economic sustainability.

1.1.2 The introduction of modern efficient electric rolling stock and the next phase of the electrification of our railway network will enable a cleaner greener and quieter railway with lower carbon emissions. Benefiting Scotland’s commuters, business users, tourists and leisure travellers with increased service choice and faster journey times on modern, attractive and energy efficient trains.

1.1.3 The proposed programme of improvement has undergone a Strategic Environmental Assessment (SEA). The results are set out in the Environmental Report which accompanies this consultation document.

2.0 The Edinburgh Glasgow Improvement Programme

2.1 Background

2.1.1 An efficient transport system is recognised as one of the key areas for improving productivity and delivering sustainable growth in Scotland. Improvements to transport infrastructure and services can facilitate new markets, improve access to employment and help to create a strong core of businesses that foster competitiveness and promote and deliver growth1.

2.1.2 Use of rail transport is continuing to grow, with demand for both passenger and rail freight services forecast to increase by at least a third over the next two decades2. Along with increased demand, increased expectations from passengers (and freight customers) about the quality and reliability of the service offered are also anticipated. Modern, efficient rail infrastructure and rolling stock is therefore crucial to meet these growing demands.

2.1.3 Scotland’s railways represent one of the country’s most valuable assets. Rail provides vital connections to jobs, connects communities to places and provides access to services across the country. The Scottish Government recognises that the continued expansion of and improvement to the rail network is subject to both financial and physical constraints and thus seeks to continue to deliver benefits that are affordable and sustainable.

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2 ‘Scotland’s Railways’, Transport Scotland (December 2006).
2.1.4 Rail is also capable of contributing to national policies on sustainable development and climate change. Supporting the objectives of the Climate Change Act (Scotland) 2009, the Scottish Government aims to reduce transport-related emissions by encouraging commuters and travellers to choose rail travel over air and private vehicles and by increasing the quantity of goods transported by rail freight.

2.1.5 The Scottish Government’s vision for the railway in Scotland is that it should provide a safe, reliable customer-focused service that supports the economy and delivers wider social inclusion and environmental aspirations, although it is recognised that the railway cannot meet all of Scotland’s transport needs. However, by maximising the key strengths offered by the railway, the rail network can be developed where that is the best long term solution.

2.1.6 In 2008 Transport Scotland undertook the Strategic Transport Projects Review (STPR)\(^3\) to define the most appropriate strategic investments in Scotland’s national transport network from 2012. The STPR focused on the identification of interventions that most effectively support the delivery of Scottish Government policy and contribute towards the Government’s purpose to increase sustainable economic growth\(^4\).

2.1.7 The Edinburgh Glasgow Improvement Programme (EGIP) was identified as one of 4 priority projects out of 29 recommendations proposed by the STPR, which included the:

- Forth Replacement Crossing
- Edinburgh Glasgow Improvement Programme (EGIP)
- Highland Main Line Improvements; and
- Aberdeen to Inverness Rail Improvements.

2.1.8 The 2008 STPR included a Strategic Environmental Assessment of EGIP in a high level strategic context of 29 possible transport interventions in accordance with the Environmental Assessment (Scotland) Act 2005. This new SEA builds on that work and the considerable body of programme development work since 2008 to focus on EGIP as a strategic programme in its own right.

2.2 **The Edinburgh Glasgow Improvement Programme timeline**

2.2.1 On 27 September 2007, in a statement to the Scottish Parliament, the Minister for Transport, Infrastructure and Climate Change set out the Scottish Government’s commitment to improvements to rail connections between Edinburgh and Glasgow, together with the creation of a new multi-modal railway station in the Gogar area of Edinburgh to integrate with the new tram network and provide onward connection for passengers to Edinburgh Airport.

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\(^4\) as set out in the Scottish Government’s Economic Strategy
2.2.2 The programme of improvements announced by the Minister was taken forward by Transport Scotland as the “Edinburgh to Glasgow Improvement Programme” (EGIP) with the key objectives of

- Upgrading Central Scotland’s transport links through the electrification of over 350 single track kilometres of the central Scotland rail network to deliver improved rail connections between Edinburgh and Glasgow.
- An increased level of service from (2007 service levels) of five or six services each hour with a fastest journey time of 50 minutes to 13 services each hour and a fastest journey time of around 35 minutes, providing faster, greener and more reliable train services and offering a greater range of rail connectivity options.
- A range of improvements to central Scotland’s railway, outwith the main Edinburgh and Glasgow rail corridor, delivering improvements as far afield as the Stirling, Dunblane, Alloa, Cumbernauld and Carstairs lines, benefiting an estimated 15 million rail users per year. The electrification of key routes would unlock the potential for a cleaner railway which produces lower carbon emissions and is less expensive to operate, allowing Scotland’s commuters, business users, tourists and leisure travellers to benefit from faster journey times on modern, attractive and efficient trains.

2.2.3 In early 2012 Transport Scotland conducted a review to confirm the validity of the original EGIP objectives and outputs, and explore alternative, more affordable options for EGIP. The review identified that recently announced joint proposals from Network Rail, the Buchanan Partnership and Glasgow City Council for the redevelopment of Buchanan Galleries and Queen Street Station presented an opportunity to enable a more affordable phased EGIP delivery programme based around 4 trains per hour.

2.2.4 On 4 July 2012 the Minister for Transport and Veterans announced details of EGIP and the first phase to be taken forward for delivery. Based on four trains per hour, with longer trains and extended platforms at Queen Street Station, and other intermediate stations on the route, Phase 1:

- Electrifies the core Edinburgh to Glasgow (via Falkirk High) line;
- Electrifies the Cumbernauld lines in time for the 2014 Commonwealth Games; and
- Delivers the new Edinburgh Gateway Station, to be served by Fife line services.

2.2.5 The Scottish Government remains committed to EGIP. Other elements of the current EGIP could be delivered in later phases subject to affordability and other considerations, including High Speed Rail and wider capacity issues.

2.2.6 EGIP and the Scottish Government’s Electrification Programme has already delivered key infrastructure and service improvements, including the electrification of Haymarket North Tunnel and new services introduced on both the Edinburgh Glasgow via Shotts and Carstairs lines. The £27 million redevelopment of Haymarket Station is expected to open to the public in December 2013 and route clearance works in advance of the electrification of the Edinburgh Glasgow and Stirling-Alloa-Dunblane lines are well underway.
2.2.7 The £80 million pound electrification of the Cumbernauld lines is also underway and will be delivered in time for the Commonwealth Games, with services commencing in May 2014. Marking the first phase of EGIP electrification, the operation of Cumbernauld services from the Low Level station will release station capacity, assisting the redevelopment and electrification of Queen Street High Level station.

2.2.8 The redevelopment of Glasgow Queen Street station will transform one of Scotland’s most important stations and enable eight-car train operations to increase capacity on this route. This additional rail capacity will bring benefits for the rest of the rail network in the central belt and beyond.

2.2.9 The programme for the delivery of EGIP electric rolling stock onto the Edinburgh Glasgow (via Falkirk High) route is driven by forecast passenger demand. Following electrification of the core Glasgow Edinburgh (via Falkirk High) line in December 2016, 7-car electric trains will be phased into service in 2017 replacing the outgoing 6-car diesel units. Further capacity enhancements will follow in December 2018 when 8-car trains are introduced into the service.

2.2.10 As well as increased capacity, EGIP will deliver significant improvements in journey times and performance. Electric operation will provide passengers with a cleaner, greener and quieter railway with lower carbon emissions. The December 2017 timetable will take advantage of the performance benefits of the new electric trains to deliver enhanced journey times. At the same time, work will be underway on the electrification of the Stirling-Alloa-Dunblane line. All electrification work and replacement of the full fleet of diesel trains will be complete by December 2018. At this point passengers will benefit from 42-minute journey times between Scotland’s two major cities.

2.2.11 The new rail-tram interchange Edinburgh Gateway station, situated next to the A8 in the Gogar area of Edinburgh, will integrate with the new tram network to provide connections for passengers to and from Edinburgh Airport and the surrounding west Edinburgh area. Network Rail has commenced advanced works on the shared tram site. Transport Scotland are working closely with Network Rail and the City of Edinburgh Council to agree a mutually acceptable delivery programme and access rights to the station site, which will enable the new station to open at the earliest possible opportunity following the introduction of the new Edinburgh trams.

2.2.12 The EGIP electrification will be followed by a rolling programme of electrification of around 100 single track kilometres per year until 2019 including:

- Rutherglen Whifflet Line electrification. On 30 May 2013, the Minister for Transport and Veterans announced the electrification of the Whifflet lines, the first major output of the next five-year rail investment period which starts on 1 April 2014. The route, from Glasgow to Coatbridge, was originally planned for full electrification by 2018-19 but has been brought forward to summer 2014 to enhance network reliability and provide greater flexibility to support the Commonwealth Games and the Ryder Cup.
• Electrification of the Stirling-Alloa-Dunblane lines will follow the completion of the Edinburgh Glasgow (via Falkirk High) route. Network Rail set out their proposals for the electrification of these lines in their Strategic Business Plan (7 January 2013). The electrification, planned for completion by December 2018, will deliver journey time improvements for passengers travelling to Edinburgh or Glasgow and will also complete the electrification of the Falkirk Grahamston route section.

• Shotts line electrification. Also set out in our 2012 High Level Output Specification for Control period 5 is the electrification of 74 track km of the Shotts Line between Holytown and Midcalder junctions. We have asked Network Rail to develop and deliver this work by 2019.

2.2.13 The initial work to be progressed under EGIP is summarised in Table 1 and illustrated in Figure 1. Possible future interventions are set out in Table 2 and illustrated in Figure 2. The timeline for this work is as follows:

• December 2013 - Haymarket Station Capacity enhancements open to passengers.
• May 2014 - Introduction of electric services on Cumbernauld route
• December 2016 - Introduction of 7-car electric services on Edinburgh Glasgow via Falkirk High route.
• December 2016 - Edinburgh Gateway Rail/Tram interchange opens to passengers.
• December 2018 - 42 minute fastest journey time and introduction of 8-car electric services on Edinburgh Glasgow via Falkirk High route.
• March 2019 - Redevelopment of Glasgow Queen Street Station.
Table 1. EGIP initial phase interventions

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Need</th>
<th>Description of proposed works.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrification Programme: Electrification of Edinburgh Glasgow via Falkirk High; Glasgow Cumbernauld Line.</td>
<td>The electrification of selected routes.</td>
<td>The works will comprise the erection of overhead lines for the selected routes supported by stanchions. It may be necessary to raise bridges or lower the track beneath bridges to ensure the clearance necessary for the installation of overhead line equipment. Any such requirement will be determined at project-level for each structure.</td>
</tr>
<tr>
<td>Edinburgh Waverley Station Infrastructure Capacity</td>
<td>To meet increased track and platform capacity demands.</td>
<td>Works will include the extension of existing platforms, creation of two new, long distance platforms and concourse capacity improvements.</td>
</tr>
<tr>
<td>Haymarket to Inverkeithing Signalling Headways</td>
<td>To allow the maximum capacity of the Fife lines/North Lines approaches to Edinburgh to be utilised by services.</td>
<td>The Haymarket–Inverkeithing Infrastructure package proposes to relocate signals along the route and introduce additional signal sections across the Forth Bridge and into Fife to improve the current signalling headways.</td>
</tr>
<tr>
<td>Intermediate Edinburgh &amp; Glasgow Station platform lengthening works</td>
<td>Station platform extensions are required at four stations on the Edinburgh Glasgow line to facilitate the use of longer trains on the route.</td>
<td>Platform extensions will be undertaken at Croy, Falkirk High, Polmont and Linlithgow.</td>
</tr>
<tr>
<td>Springburn Re-modelling</td>
<td>To increase capacity and flexibility of services between Springburn and Cumbernauld.</td>
<td>Provision of a trailing crossover and upgrading of existing single bi-directional junction to a double junction.</td>
</tr>
<tr>
<td>Glasgow Queen Street High Level Station Infrastructure Capacity (including High Level Station Architectural and Operating Improvements)</td>
<td>To meet the increased track and platform capacity demands.</td>
<td>Works will include the optimisation of the length of each platform, and will also include improvements to the current signalling arrangements between the station and the Cowlairs area. The proposed works involve track remodelling, realignment of existing platforms, and platform lengthening. There will also be provision of appropriate station facilities that align with the proposed new platform arrangements, which may include potential development options within the station.</td>
</tr>
<tr>
<td>Intervention</td>
<td>Need</td>
<td>Description of proposed works.</td>
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<tr>
<td>Stabling Depot with provision as a Rolling Stock Depot–Millerhill</td>
<td>A new Electrical Multiple Unit (EMU) rolling stock stabling and cleaning facility</td>
<td>Provision of required depot facilities including buildings, access roads, vehicle and pedestrian routes, and parking. Includes provision for future maintenance facility at the existing Millerhill freight yard (east of Edinburgh) including new network connection in the Newcraighall area.</td>
</tr>
<tr>
<td>Edinburgh Gateway Station</td>
<td>Provision of a new inter-modal station in the Gogar area to allow effective interchange of passengers between the new Edinburgh tram line to Edinburgh Airport and the existing national rail network.</td>
<td>Development will comprise a vertical transfer structure; platform building; two platforms; concourse; pedestrian underpass; car park and highway alterations; platform footbridge; retaining structure and landscaping.</td>
</tr>
<tr>
<td>Haymarket Station Capacity Improvements</td>
<td>The provision of improved facilities at Haymarket Station to increase passenger flow and support compliance with requirements under the Disability Discrimination Act.</td>
<td>Creation of a new concourse/bridge to the west of the existing bridge with additional escalator platform access. Further passenger lifts will also be installed for improved access.</td>
</tr>
<tr>
<td>Electrification of Stirling-Alloa-Dunblane lines and Falkirk Grahamston diversionary routes.</td>
<td>The electrification of these lines will facilitate EGIP journey time improvements</td>
<td>Not being taken forward as part of EGIP. The electrification of the Stirling-Alloa-Dunblane lines and Falkirk Grahamston diversionary route will be delivered as part of the Scottish Government CP5 electrification programme. The works will comprise the erection of overhead lines for the selected routes supported by stanchions. It may be necessary to raise bridges or lower the track beneath bridges to ensure the headroom necessary for the overhead lines. Any such requirement will be determined at project-level for each structure.</td>
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5 The Scottish Ministers’ High Level Output Specification (published 21 June 2012) (available at: http://www.transportscotland.gov.uk/strategy-and-research/publications-and-consultations/j232012-00.htm). With respect to the functions and powers transferred to them under the Railways Act 2005, this document specifies what the Scottish Ministers require the rail industry to achieve with regard to the rail network in Scotland during Control Period 5 (2014-2019). In addition, and as far as is possible, it also outlines the public financial resources which are, or are likely to become, available to support that activity.
### Table 2. EGIP possible future interventions

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Need</th>
<th>Description of proposed works.</th>
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<tbody>
<tr>
<td>Croy Station Turnback</td>
<td>To increase capacity, enhance the timetable and reduce journey times to outer suburban locations.</td>
<td>Provision of a new turnback facility, which may require the provision of a new platform.</td>
</tr>
<tr>
<td>Greenhill Upper &amp; Lower Junction Enhancement</td>
<td>To increase the current main line and branch capacity capabilities through the minimisation or elimination of current junction conflicts.</td>
<td>Provision of a new grade-separated junction.</td>
</tr>
<tr>
<td>Winchburgh Junction Enhancement</td>
<td>To balance capacity demands on the North Lines and South Lines approaches to Edinburgh Waverley and increase connectivity of the new airport interchange station at Gogar with the rest of the Scottish rail network.</td>
<td>Provision of a new grade-separated junction.</td>
</tr>
<tr>
<td>Winchburgh Junction to Dalmeny Junction Upgrade</td>
<td>Works required to increase the current line speed from 40 mph to 100 mph on the existing route between Winchburgh Junction and the site of the proposed new double flat junction at Humbie, the location of the western end of the new Dalmeny Chord.</td>
<td>Works required to increase the current line speed from 40 mph to 100 mph on the existing route between Winchburgh Junction and the site of the proposed new double flat junction at Humbie, the location of the western end of the new Dalmeny Chord.</td>
</tr>
<tr>
<td>Dalmeny Chord</td>
<td>Provision of a new high speed route from a double flat junction near Humbie on the existing Winchburgh to Dalmeny line and a new grade separated junction within the Fife Lines to the north of the bridge across the River Almond.</td>
<td>Provision of a new high speed route from a double flat junction near Humbie on the existing Winchburgh to Dalmeny line and a new grade separated junction within the Fife Lines to the north of the bridge across the River Almond.</td>
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</table>
Figure 1. EGIP - initial interventions
Figure 2. Future interventions (including selected CP5 projects)
3.0 **Next Steps**

3.1 The consultation timescales for EGIP and the Environmental Report will be six weeks. Public views on this consultation document and the Environmental Report are now invited.

3.2 Network Rail is undertaking the consultation on behalf of Transport Scotland. Comments, in writing, should be made to:

Edinburgh Glasgow Improvement Programme (EGIP)  
Strategic Environmental Assessment Consultation  
5th Floor  
Buchanan House  
58 Port Dundas Road  
Glasgow G4 0LQ

3.3 Comments by e-mail should be made to:  
[EGIPEnvironmental@networkrail.co.uk](mailto:EGIPEnvironmental@networkrail.co.uk)

3.4 Please provide your comments by 2 December 2013.

3.5 Transport Scotland may make the responses to this consultation paper available to the public and to the Scottish Parliament. Network Rail will acknowledge responses and may publish an analysis of the responses after the consultation. If you respond to this consultation you are requested to complete the respondent information form on the following page. This will ensure that your responses are handled appropriately.
Edinburgh Glasgow Improvement Programme

RESPONDENT INFORMATION FORM

Please Note this form must be returned with your response to ensure that we handle your response appropriately

1. Name/Organisation

Organisation Name

<table>
<thead>
<tr>
<th>Title</th>
<th>Mr</th>
<th>Ms</th>
<th>Mrs</th>
<th>Miss</th>
<th>Dr</th>
<th>Please tick as appropriate</th>
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2. Postal Address

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3. Permissions - I am responding as...

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(a) Do you agree to your response being made available to the public (in Scottish Government library and/or on the Scottish Government web site)?

- Please tick as appropriate
  - Yes
  - No

(b) Where confidentiality is not requested, we will make your responses available to the public on the following basis

- Please tick ONE of the following boxes
  - Yes, make my response, name and address all available
  - Yes, make my response available, but not my name and address
  - Yes, make my response and name available, but not my address

(c) The name and address of your organisation will be made available to the public (in the Scottish Government library and/or on the Scottish Government web site).

- Are you content for your response to be made available?
  - Please tick as appropriate
    - Yes
    - No

(d) We will share your response internally with other Scottish Government policy teams who may be addressing the issues you discuss. They may wish to contact you again in the future, but we require your permission to do so.

- Are you content for Scottish Government to contact you again in relation to this consultation exercise?
  - Please tick as appropriate
    - Yes
    - No