A59 Kex Gill Diversion Scheme

Options Assessment Report

APPENDIX 3 – EAST – Economic Case Scoring

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1 Early Assessment and Sifting Tool (EAST) – Economic Case Scoring

1.1 Introduction
The EAST assessment examines the Strategic, Economic, Managerial, Financial and Commercial Cases for each corridor. As part of the Economic Case appraisal a high level assessment of the extent of all the economic, environmental and social impacts of each of the corridors has been undertaken.

In line with the Department for Transport guidance, and the decision tree examples for the Red Amber Green (RAG) scoring, the initial corridors for a Kex Gill diversion scheme have been scored against various metrics including:

- Economic Growth (Figure 1)
- Carbon Emissions (Figure 2)
- Socio-Distributional Impacts and Regions (Figure 3)
- Local Environment (Figure 4)
- Well Being (Figure 5)

The following figures include extracts from the EAST guidance, detailing the decision tree process for this assessment.
Figure 1 – Economic Growth

Economic growth

What is the expected impact of the intervention?

Connectivity
- What impact does it have on end-to-end journey time?
  - Increase
  - No change
  - Decrease
- Does it have an impact on the cost of travel (vehicle operating costs, fares, etc.)?
  - Increase
  - No change
  - Decrease

Reliability
- Impact on day-to-day variability in journey times or average minute of lateness?
  - Increase
  - No change
  - Decrease

Resilience
- What impact does the option have on the resilience of our infrastructure?
  - Reduce
  - No change
  - Improve
- What will happen to the number of incidents?
  - Increase
  - No change
  - Decrease

Delivery of housing
- How will this option facilitate new housing?
  - Prevent
  - May facilitate
  - Required to meet planned developments

Wider economic impacts
- Store in the comment box whether the option is likely to have any wider impacts
- Does it improve accessibility to key locations?
- Improve connectivity to central business districts?

Note:
Consider whether the change in the money cost of travel outweighs the value of the change in journey time.

1 Applicable only to business and commuters only (excludes leisure) 2 Eg. acts of terrorism, severe weather events or the effects of climate change
Figure 2 – Carbon Emissions

Carbon emissions

What is the expected impact of the intervention on carbon emissions?

Activity

- For non-PT modes, is the no. of vehicle trips expected to change?
- For PT modes, are service frequencies expected to change?
- Are journey lengths expected to change?
- Does your option shift activity from low to higher occupancy vehicles, including public transport?

Embedded Carbon

- Does vehicle-km change?
  - Increase
  - No change
  - Decrease
- Is significant construction work required?
  - Yes
  - No

Carbon content

- Does the option involve a lower carbon fuel to be used (carbon per litre)?
  - Higher carbon
  - No change
  - Lower carbon

Efficiency

- Does fuel per vehicle-km change?
  - Increase
  - No change
  - Decrease

Overall effect on carbon emissions

- Non traded
  - Diesel, petrol and biofuel (highway, diesel PTL/weight, shipping, etc.)
  - Increase
  - No change
  - Decrease
- Traded
  - Electric (Aviation, Electric powered PTL/weight, electric cars, etc.)
  - No change
  - No impact

1. Net effect on traded carbon would not impact total carbon dioxide emissions, and hence, the net impact should be reflected as ‘No change’
2. Aviation is due to enter the traded sector in 2012
Socio-distributional impacts and the regions

Social and Distributional Impacts (SDIs)
- Does the option have an impact on accessibility/affordability/availability/acceptability for vulnerable groups (low income, disabled, the elderly, etc.)?
  - Negative
  - No change
  - Positive
- Can it be mitigated against?
  - No
  - Yes

Regeneration
- Does the option have an impact on a targeted regeneration area, if so what is the impact likely to be?
  - Negative
  - No change
  - Positive

Regional imbalance
- If this is a weak region, what is the impact of the option on the region?
  - Negative
  - No change
  - Positive
- How will this impact economic growth?
  - Negative
  - No change
  - Positive

It should be noted that there are eight Social and Distributional Impacts (SDIs) that need to be considered in a full appraisal. The eight SDIs are Noise, Air Quality, Severance, Accessibility, Personal Affordability, Accidents, Security, and User Benefits, which are also relevant to the other goals. See the Strategic Appraisal Guidance for more information.
Figure 4 – Local Environment

Local environment

What is the expected impact of the intervention?

Air quality

What impact does the option have on local air quality?

- Negative
- No change
- Positive

Is an AQMA\(^1\) being affected?

YES: How many households are affected?

- Many
- Few

NO: Is it likely to create the need for a new AQMA?

- Yes
- No

Noise

Does this option reduce absolute disturbance from noise?

- No
- No change
- Yes

Does it affect a problem area\(^2\)?

- No
- Yes

When considering the overall impact please consider the what the scale of the disturbance maybe and please note accordingly.

Natural environment, heritage and landscape

What is the overall impact on the natural and urban environment?

- Negative
- No change
- Positive

If negative then...

What is the value of the environment affected?

- High
- Low

Improve streetscape and urban environment

\(1\) AQMA – Air Quality Management Area  \(2\) See DEFRA Noise Action Plan
Figure 5 – Well Being

Well being
What is the expected impact of the intervention?

**Severance**
- Does it increase possibility of cross-street corridor connections between neighbourhoods?
  - No
  - No change
  - Yes

**Physical activity**
- Will more or less people be outside the public realm as a result?
  - More
  - No change
  - Less

**Injury or deaths**
- What impact does the option have on levels of physical activity?
  - Increase
  - No change
  - Decrease

**Crime**
- What impact will this option have on crime?
  - Increase
  - No change
  - Decrease

**Enjoying access to a range of goods, services, people and places**
- What impact does it have on end-to-end journey time?
  - Longer
  - No change
  - Shorter

**Terrorism**
- What will happen to the number of incidents?
  - Increase
  - No change
  - Decrease

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Note: Please note if the option is in an area of deprivation or poor health.

*Non-work and non-commute trips*