



**An Roinn Caiteachais
Phoiblí agus Athchóirithe**
Department of Public
Expenditure and Reform



**Tionscadal Éireann
Project Ireland
2040**

MPAG Review Note

BusConnects

Preliminary Business Case

Date

23 February 2022

Sponsoring Agency

National Transport Authority

Approving Authority

The Government¹

Note

The purpose of the Major Projects Advisory Group is to support the application of the Public Spending Code and consider major public investment proposals (in particular in relation to costs, scheduling, delivery and risk) in advance of Government Decision.

Documents Considered for Review²

220114 - BusConnects PBC – Final

20220128 JASPERS Review of PBC

Date Received by MPAG

28 January 2022

Date of MPAG Meeting

21 February 2022

Date of MPAG Report

23 February 2022

¹ The National Transport Authority and Department of Transport retain day-to-day Approving Authority responsibility.

² While certain other supporting documents have been made available, these have not been considered as part of the project review.

1. Main Findings and Recommendations

Project costs, contingencies and contingency governance

- 1.1 The PBC has used a mix of methods to estimate total costs, consisting of “inside view”, “outside view” and “expert judgement”. This is in line with best practice and consistent with the PSC.
- 1.2 In order to ensure that the Government decision on the PBC is informed by up-to-date and accurate information, the Sponsoring Agency should update the inflation assumptions used to adjust the 2020 costings to 2022. The uplift factors should be based on observed market trends (to the extent possible) as opposed to obsolete forecasts from Q1 2020.
- 1.3 While future uncertainty relating to the project may necessitate the draw-down of contingency, inflation experienced already (between the preparation of the PBC and DG1) should not be covered from the contingency sum.
- 1.4 In addition, the inflation forecasts for the construction period must be informed by best available information on market trends and a range of likely developments over the medium-term.
- 1.5 While techniques such as Reference Class Forecasting (RCF) and benchmarking exercises have been used in the forecasting of the programme’s estimated costs, the Approving Authority and Sponsoring Agency must be satisfied that this is being applied to a robust base case cost with realistic inflation assumptions.
- 1.6 The methodology underpinning the RCF forecast appears in line with best practice. However, the governance and management of contingencies requires immediate attention. The business case uses the P75 cost uplift of 40%. Supporting documentation also presents an estimate of the required uplift to achieve a P60 certainty estimate.
- 1.7 At this point in the programme lifecycle, it is prudent to work to the higher cost certainty estimate for the overall programme budget and assessment of Exchequer affordability. However, the Sponsoring Agency and project team should work to a lower target cost. Retaining a level of “tension” in contingency structures will help control scope, support value for money, enable project success and guard against contingencies becoming subsumed in routine project management.
- 1.8 The Department and NTA should immediately set out clear arrangements for contingency governance and tiered contingency management throughout the future phases of the project, should it proceed.

Risk of fragmentation

- 1.9 The programmatic approach to BusConnects is justified in the PBC. This can allow for agility and responsiveness in project development and is appropriate given that the overall network can deliver benefits in excess of the sum of individual components.
- 1.10 Nonetheless, the corollary of this approach is the risk of fragmentation which could pose a challenge for the integration of components within the overall system and for the programme as it moves asynchronously through the planning and procurement phases.
- 1.11 Should the programme proceed through DG1, this risk should be actively managed including through focused programme integration. The establishment of the Sponsoring Agency Coordination Group is noted in this regard.

Programme sponsorship and risks in the planning process

- 1.12 Should the project progress, the Sponsoring Agency must ensure active programme sponsorship and leadership throughout the planning process. The risk of fragmentation poses a potential challenge in the planning process which could have consequences for cost and schedule.
- 1.13 To mitigate this risk, the next phase of the project lifecycle should include an extensive benefits realisation strategy. This should encompass a detailed and up-to-date assessment of alignment with the Government's Climate Action Plan and active travel strategy to maximise scheme impact.
- 1.14 The JASPERS review notes that there is considerable experience in bus priority projects and 'as such, the project is not considered to be innovative or carrying exceptional technical risk'. Notwithstanding, the need for an extensive programme of compulsory purchase and the potential complexity of the planning process introduces a considerable degree of risk. This has implications for schedule which in turn could have knock-on implications for programme cost. In an inflationary environment, small changes to schedule or scope arising from planning could have significant impacts on total cost.
- 1.15 Should the project proceed through DG1, the Sponsoring Agency should assess the likely impact at the programme level in the event that particular route corridors are curtailed, delayed or amended. This issue will be especially important as a specific component of the EIARs conducted for each of the different CBCs and submitted to An Bord Pleanála.

Procurement

- 1.16 The adequacy of the supply chain is a key risk to the programme. This relates to a range of components from civil and construction works, to fleet and charging infrastructure that need to inform the development of the procurement model. Should the programme proceed through DG1, future iterations of the business case should seek to actively manage these risks. This

may include tailoring specific aspects of the programme to ensure adequacy and value for money in procurement.

- 1.17 Future iterations of the business case should retain agility in technology specification and avoid the risk of technology lock-in.
- 1.18 The Sponsoring Agency should engage with the Office of Government Procurement and the Government Construction Contracts Committee if it is planned to deviate from the standard public works contract suite.

Demand forecasting, economic appraisal and financial appraisal

- 1.19 Should the project progress through DG1, the Sponsoring Agency and Approving Authority should continue to assess demand forecasts for the programme, the sensitivity of the economic case to emerging patterns of mobility and commuting post-COVID-19 and the implications for demand forecasts of other transport megaprojects planned for Dublin. In particular, the specific impact on particular route corridors should be monitored as incremental changes in the transport network are delivered.
- 1.20 As more granular detail becomes available, demand sensitivities should assess the implications for overall programme impact in the event that particular route corridors are curtailed, delayed or amended.
- 1.21 Given the recent high rates of construction inflation and the base case – using 2020 prices – shows a BCR of 1.6 and a downside BCR of 0.9, the economic case for the project needs to be monitored carefully as further information becomes available.
- 1.22 The financial appraisal should be conducted using nominal values and using the DPER/NDFA discount rate, not the Test Discount Rate.

Sponsoring Agency and Approving Authority

- 1.23 The JASPERS Review notes potential governance risks associated with the NTA notionally holding both role of Sponsoring Agency and Approving Authority.
- 1.24 In fact, the Government is the Approving Authority. It is the role of the relevant Government Department – in this case Department of Transport - to fully support Government in this role and it is the responsibility of the Accounting Officer to ensure compliance with the Public Spending Code and to ensure project budgets are properly managed.

2. Background

2.1 As set out in the Preliminary Business Case, BusConnects is a major programme of investment in Dublin's bus and cycle networks. Key outputs of the proposed programme include:

- 230kms of dedicated bus corridors and 200kms of safe cycling infrastructure on 16 radial routes
- Redesign of existing bus network and services
- Introduction of next generation ticketing system and simplified bus fare structure
- Purchase of Low Emission Vehicles for the bus fleet
- Provision of additional bus shelters, particularly at interchange locations
- Rollout of a standardised bus livery and improved customer information systems including signage, electronic displays and timetables

2.2 The central estimate of upfront capital cost in the PBC is €3.85bn³. The key outcomes arising from this investment include:

- A 16% increase in the number of people within 400 metres of a frequent bus service
- A bus fleet that is fully comprised of low or zero emission vehicles
- An 11% estimated reduction in bus journey times and 49% reduction in bus journey time variability
- A 23% increase in the number of bus services with new service connects to schools, hospitals and other essential services
- Rebalancing of road space to accommodate future demand of cyclists, walkers and public transport

2.3 Decision Gate 1 approval is currently being sought at the programme level for BusConnects Dublin and at project level for the Core Bus Corridors elements of the programme. Approval will allow these elements of the programme to proceed to planning and procurement stage of the project lifecycle.

2.4 The Preliminary Business Case for the BusConnects programme has been submitted to PER to be reviewed as part of the Major Project Advisory Group (MPAG) process. The documents reviewed by MPAG members are the Preliminary Business Case and a review of the proposal by JASPERS⁴.

2.5 It should be noted that Decision Gate 2 approval is being sought at the project level for Next Generation Ticketing element of the programme. This project is going through a separate peer

³ Based on 2020 prices and inflation assumptions.

⁴ While certain other supporting documents have been made available, these have not been considered as part of the project review.

review process led by the Office of the Government Chief Information Officer (OGCIO) and accordingly has not been considered as part of the MPAG process for BusConnects.

- 2.6 JASPERS, an arm of the European Investment Bank, have completed a review of the BusConnects Preliminary Business Case as part of the Department of Transport's external assurance process.
- 2.7 JASPERS have noted that the current scope of the programme provides "a coherent investment package". Demand and cost estimates are suitable for the PBC although presented at a high level although they note that cost contingencies are relatively high given the programme's level of development.

3. Investment Rationale

- 3.1 The programme rationale provides an overview of the public policy context, projected population growth in the Greater Dublin Area, demand growth trends for public transport and problems with the existing bus network and bus services in the region.
- 3.2 The Preliminary Business Case would benefit from a more detailed integration of the cycling infrastructure component of the programme and the alignment and integration of BusConnects with current national cycling strategy.
- 3.3 The alignment of programme rationale with national climate policy could be significantly strengthened. Should the programme proceed through DG1, the next stage of the process should encompass a detailed and up-to-date assessment for consistency with the Government's Climate Action Plan. This should include an assessment of the total environmental impact of the programme and alignment with emerging public policy including in relation to internal combustion engine vehicle demand management.
- 3.4 The rationale for the current scope of the proposal is based on assumptions which predate the COVID-19 pandemic. These include population in Dublin meeting the growth projections set out in the National Planning Framework and travel demand and behaviour returning to trends similar to those observed prior to 2020. With the medium- to long-term impact of the pandemic still uncertain, these assumptions must be continuously monitored and the scope of the programme potentially adjusted to reflect observed changes in trends for population growth, commuting patterns and transport demand.

4. Programme Objectives

- 4.1 The Preliminary Business Case distinguishes between the overarching goals and the specific objectives for the programme. The four overarching goals for the programme are:
- Transition to bus and active travel
 - Improve the service offering
 - Improve the user experience
 - Deliver on environmental and policy targets
- 4.2 The Preliminary Business Case outlines 11 specific objectives for the programme under the four overarching goals. The objectives sufficiently demonstrate a relationship with the challenges and opportunities outlined in the rationale for the proposal.
- 4.3 A number of programme objectives are faced with challenges in attributing projected outcomes with the interventions being proposed in BusConnects. These challenges may arise as a result of the impacts generated through other public transport interventions including DART+ and MetroLink and wider trends in the transport sector including electrification of the national vehicle fleet.
- 4.4 The JASPERS report notes that the design of Bus Corridors is inherently tied into indicators. As there is no single system specification (as in major roads or urban railways), the indicators will drive the level of intervention required and hence the cost of the investment. The development of indicators on journey time and reliability should be seen as key inputs to the scheme design, and not an output, particularly where there can be extremely high cost items to increase average bus speeds through critical sections.

5. Programme Options

- 5.1 The Preliminary Business Case presents four do-something options:
- Management Based Approach
 - Priority Infrastructure
 - Partial Programme
 - Full Programme
- 5.2 The PBC notes that the current preferred option of the full programme addresses the rationale and objectives for the programme. The other do-something options meet the rationale and objectives of the programme to a lesser degree than the full programme option.
- 5.3 Programme options based on analysis undertaken in the Greater Dublin Area Transport Strategy, the Network Redesign Choices report and the New Dublin Area Bus Network report.
- 5.4 The preferred option for the programme has been selected on the basis of Multi-Criteria Analysis (MCA). Each option was assessed using the criteria set out in the Department of Transport's sectoral appraisal guidance, the Common Appraisal Framework. Quantitative analysis of each option in terms of Cost-Benefit Analysis or Financial Appraisal is not presented in the Preliminary Business Case.
- 5.5 The discussion of impacts in the PBC is focused at the programme level. This can make it difficult to discern the impact and potential benefits of constituent projects within the programme. Should the programme proceed, future iterations should assess the sensitivity of overall impact to developments with particular components of the programme. In particular, as the implementation plan is evolved in response to Planning approvals and phasing of routes to limit socio-economic disruption in construction, it will be important to be able to show the incremental benefits as well as how this phasing informs overall cost and risk quantification.
- 5.6 Similarly, the PBC does not give adequate consideration to the critical interdependencies between discrete programme elements. This poses a risk to the realisation of programme benefits. Should the programme proceed through DG1, this risk should be actively managed including through focused programme integration. The establishment of the Sponsoring Agency Coordination Group is noted in this regard.

6. Programme Costs

- 6.1 The central estimate of total capital expenditures set out in the PBC is €3.85bn⁵ in the years to 2032. Total forecast operating costs associated with the full implementation of the preferred option are €12.30bn over the period 2020 – 2058 with renewal costs over the same period amounting to €4.74bn. The incremental cost shows the forecast cost over and above estimated costs of the counterfactual approach.

Cost Type	Period Incurred	Total Cost	Incremental Cost
Capital Costs	2020 - 2032	€3.85bn	€2.56bn
Operating Costs	2020 - 2058	€12.30bn	€8.50bn
Renewal Costs	2020 - 2058	€4.74bn	€0.67bn

⁵ Using 2020 prices and 2020 inflation forecast.

6.2 Table 6-2 provides a detailed breakdown of the upfront capital costs for the preferred option set out in the PBC⁶.

Table 6-2: BusConnects Capital Cost Breakdown			
2020-2032	Do-Minimum Total	Total Cost	Incremental Costs
Upfront Capital Costs	€m	€m	€m
Network Redesign	0	18	18
Core Bus Corridors	0	1,090	1,090
Next Gen Ticketing (BusConnects)	10	97	87
Bus Fleet	756	812	56
Stops & Shelters	0	22	22
Park & Ride	0	40	40
Depot	42	50	8
Base Costs	808	2,130	1,322
Risk & Contingency	98	632	534
Land & Property	0	182	182
Real Costs (ex-VAT)	906	2,943	2,037
Inflation	152	355	203
Nominal Costs (ex-VAT)	1,058	3,298	2,240
VAT (13.5%)	8	229	221
VAT (23%)	229	325	96
Total (incl. VAT)	1,296	3,852	2,557

6.3 The PBC has used a mix of methods to estimate total costs, consisting of “inside view”, “outside view” and “expert judgement”. Reference Class Forecasting (RCF) and benchmarking exercises have been used to validate the cost estimates.

⁶ Using 2020 prices and 2020 inflation assumptions.

- 6.4 In order to ensure that the Government decision on the PBC is informed by up-to-date and accurate information, the Sponsoring Agency should update the inflation assumptions used to adjust the 2020 costings to 2022 values. The uplift factors should be based on observed market trends (to the extent possible) as opposed to obsolete forecasts from Q1 2020.
- 6.5 While future uncertainty relating to the project may necessitate the draw-down of contingency, inflation experienced already (between the preparation of the PBC and DG1) should not be covered from the contingency sum.
- 6.6 The impact of such an approach would be to narrow the confidence level at the upper end of the cost range and increase the risk that the project will exceed its budget with attendant consequences for affordability.
- 6.7 In addition, the inflation forecasts for the construction period must be informed by best available information on market trends and the range of likely developments over the medium-term.
- 6.8 While techniques such as reference class forecasting and benchmarking exercises have been used in forecasting costs, the Approving Authority and Sponsoring Agency must be satisfied that these adjustments are being applied to a robust and up-to-date base case cost with realistic inflation assumptions.
- 6.9 The methodology underpinning the RCF forecast appears in line with best practice. However, the governance and management of contingencies requires immediate attention. The business case shows the P75 cost uplift of 40%. Supporting documentation also presents an estimate of the required uplift to achieve a P60 certainty estimate.
- 6.10 It is not clear from the details provided as to the level at which primary responsibility for day-to-day cost management, including managing of contingency, for the programme rests. At this point in the programme lifecycle it is prudent to consider programme viability and affordability based on a higher cost certainty estimate for the overall programme budget, however, the Sponsoring Agency and project team should work to achieve a lower target cost with greater definition of works requirements through design and planning.
- 6.11 Retaining a level of “tension” in contingency structures will help to control scope creep, maximise value for money, enable project success and guard against contingencies becoming subsumed in routine project management.
- 6.12 The Department and NTA should immediately set out clear arrangements for how contingency will be managed throughout the future phases of the project, should it proceed.

- 6.13 The framework adopted should be able to demonstrate at future gates how DG1 contingencies have been resolved between risks realised as scope, residual risk (continuing contingency) and value derived through managing out risk issues.
- 6.14 Projected PSO funding requirements do not attempt to account for future operational and implementation efficiencies. Future iterations of the Business Case should address these issues, should the programme proceed.

7. Financial and Economic Appraisal

Financial Analysis

- 7.1 Revenue forecasts in the financial appraisal are based on a conservative lower demand growth basis and future operational and implementation efficiencies are not assumed.
- 7.2 Construction inflation is assumed at 1.2% in 2020, 0% in 2021 and increases incrementally by 1% until 2024, 3.5% between 2025 and 2027 and 3% thereafter until the end of appraisal period. As noted, these estimates are no longer realistic and the Sponsoring Agency and Approving Authority must ensure that costs are up to date, that recent market trends have been included and that inflation assumptions are based on best available evidence. While there will necessarily be residual uncertainty in the forecast of inflation, the PBC must, at a minimum, use observed trends to update the cost from the date of the estimate in the PBC (early 2020) to the point of the DG1 (early 2022).
- 7.3 The financial appraisal should be conducted using nominal values and using the DPER/NDFA discount rate, not the Test Discount Rate.

Economic Appraisal

- 7.4 A CBA and Multi-Criteria Analysis in the form of a Project Appraisal Balance Sheet have been provided for the preferred programme option. Based on the detail included in the business case, the central technical parameters such as the 4% discount rate and the shadow prices for public funds and labour have been applied correctly.
- 7.5 The CBA for the preferred option mostly uses standard transport parameters. It is noted that some non-standard parameters including active travel journey quality and journey reliability have been utilised in the central scenario in the CBA.
- 7.6 The central scenario modelled in the CBA returns a Benefit-Cost Ratio (BCR) of 1.6 and a Net Present Value (NPV) of €1.81bn.
- 7.7 A range of sensitivity tests have been conducted as part of the economic appraisal for the preferred option including costs and demand sensitivity tests. Notably, higher cost sensitivity

tests included only apply to capital costs. Future iterations of the Business Case should include higher cost sensitivity tests for operational and maintenance costs.

- 7.8 Sensitivity tests are also included to account for the impact of COVID-19 on long term and the construction of DART+ and MetroLink. A worst case scenario “economic stress test”, which combines aspects of these sensitivity tests and others such as higher is also included. The BCR for BusConnects under this worst case scenario turns negative at -0.45.
- 7.9 A sample of the sensitivity tests conducted for the economic appraisal and their respective BCRs are included in Table 7-1 below.

Table 7-1: Sensitivity Test BCRs	
Sensitivity Test	BCR
Central Scenario	1.6
Design Optimisation Test	1.6
Alternative Demand Scenario	1.1
20% Lower Operational Costs	1.7
20% Higher Capital Costs	1.4
Infrastructure test (DART+ and MetroLink)	1.2
Economic Stress Test	-0.45

- 7.10 Should the project progress through DG1, the Sponsoring Agency and Approving Authority should continue to assess demand forecasts for the programme, the sensitivity of the economic case to emerging patterns of mobility and commuting post-COVID-19 and the implications for demand forecasts of other transport megaprojects planned for Dublin. In particular, the specific impact on particular route corridors should be monitored as incremental changes in the transport network are delivered.
- 7.11 As more granular detail becomes available, demand sensitivities should assess the implications for overall programme impact in the event that particular route corridors are curtailed, delayed or amended.
- 7.12 Given the recent high rates of construction inflation and the base case BCR of 1.6 and downside BCRs of 0.9, the economic case for the project needs to be monitored carefully.

8. Risk Analysis and Management

- 8.1 A risk register is included in the business case. This captures and discusses risks at both the programme level and the individual project level. Potential impacts of these risks manifesting as issues are discussed alongside the respective probabilities of occurrence and mitigation actions.
- 8.2 There are a large number of risks listed with high impacts and high likelihood, including pushback on CPOs at CBC project level. Risks related to the planning process are included but it is not clear what the impact on the overall programme is from one or more core bus corridors being delayed or not proceeding as a result of planning issues. The business case could benefit in this regard from greater detail on how these planning risk interdependencies between the programme elements are to be managed. This should become much clearer at DG2, should the proposal proceed.
- 8.3 Should the project progress through DG1, the Sponsoring Agency must ensure active programme sponsorship and leadership throughout the planning process. The risk of fragmentation poses a potential challenge in the planning process which could have consequences for cost and schedule.
- 8.4 To mitigate this risk, the next phase of the project lifecycle should include an extensive benefits realisation strategy. This should encompass a detailed and up-to-date assessment of alignment with the Government's Climate Action Plan and active travel strategy to maximise scheme impact.
- 8.5 The benefits realisation strategy should set out clear indicators linked to the overall programme outcomes and should include evaluation at both project level and in the aggregate showing how the cumulative benefit can be derived as the programme is implemented.
- 8.6 The benefits realisation strategy should also consider the potential complementarity of BusConnects with wider public policy tools designed to reduce internal combustion engine vehicle demand in Dublin as part of the Government's Climate Action Plan.
- 8.7 The JASPERS review notes that there is considerable experience in bus priority projects and 'as such, the project is not considered to be innovative or carrying exceptional technical risk'. Notwithstanding, the need for an extensive programme of compulsory purchase and the potential complexity of the planning process introduce a considerable degree of risk. This has implications for schedule which in turn could have knock-on implications for programme cost. In an inflationary environment, small changes to schedule or scope arising from planning could have significant impacts on total cost.

- 8.8 Should the programme proceed, this risk must be actively managed and contingencies around programme schedule should be devised and closely monitored.
- 8.9 Should the project proceed through DG1, the Sponsoring Agency should assess the likely impact at the programme level in the event that particular route corridors are curtailed, delayed or amended. This issue will be especially important as a specific component of the EIARs conducted for each of the different CBCs and submitted to An Bord Pleanála. Future iterations of the business case should include sensitivity testing of the impact of these risks on the schedule, costs, demand forecasts and economic and financial appraisals.
- 8.10 Further detail relating to supply chain risks and risks concerning the technologies underpinning the low emission vehicle fleet including the charging network, would be beneficial to include within the business case.
- 8.11 The JASPERS report notes that at the programme level, risks are almost exclusively high or very high impact or likelihood. This suggests that not all risks are fully considered in the framework. Less likely risks should be included to enable clear monitoring of risk items and mitigation measures.

9. Procurement, Implementation and Governance

- 9.1 The main relevant methods of procurement at national and EU level have been listed. This includes discussion of the potential contracts for delivering core bus corridors and details provided on the procurement methods for programme elements such as new bus fleet and new bus shelters.
- 9.2 The PBC does not consider in detail the impact of disruption during delivery. This is an important consideration. Should the programme proceed through DG1, the Sponsoring Agency should assess the potential for contracting mechanisms to limit disruption during delivery. This may oblige a degree of phasing between routes, impacting programme delivery.
- 9.3 There is a reasonably detailed overview of governance structures within the PBC which draws a distinction between the Approving Authority and Sponsoring Agency elements within the NTA. In fact, the Government is the Approving Authority. It is the role of the relevant Government Department – in this case Department of Transport - to fully support Government in this role and it is the responsibility of the Accounting Officer to ensure compliance with the Public Spending Code and to ensure project budgets are properly managed.
- 9.4 As noted earlier, it is not clear from the PBC the level at which primary responsibility for day-to-day cost management and contingency governance for the programme rests. This should be immediately addressed.
- 9.5 The adequacy of the supply chain is a key risk to the programme. This relates to a range of components from civil and construction works, to fleet and charging infrastructure that need to inform the development of the procurement model. Should the programme proceed through DG1, future iterations of the business case should seek to actively manage these risks. This may include tailoring specific aspects of the programme to ensure adequacy and value for money in procurement.
- 9.6 To assist in understanding and managing this risk, the Sponsoring Agency should undertake market engagement to inform the procurement model. At the appropriate juncture the Sponsoring Agency should consider targeted market development opportunities internationally in order to widen the pool of suppliers.
- 9.7 Future iterations of the business case should retain agility in technology specification and avoid the risk of technology lock-in.
- 9.8 The stage in the programme lifecycle should include detailed procurement strategy, showing how market engagement, technology specification and network availability risks can be managed as the programme matures through to implementation and operation.

- 9.9 The JASPERS report notes that there has been good progress in securing suppliers for electrical double-deck vehicles, although provision for opportunity charging is not being incorporated to the construction of the Core Bus Corridors and this will possibly require retrofitting of such infrastructure at a later date. An assessment of routes to identify those that might be suitable for fast charge / slow charge vehicles would be required to define those locations for installation of charging infrastructure.
- 9.10 Finally, the Sponsoring Agency should engage with the Office of Government Procurement and the Government Construction Contracts Committee if it is planned to deviate from the standard public works contract suite.

10. Plan for Monitoring and Evaluation

- 10.1 A monitoring and evaluation plan provided which incorporates a logic path model, data availability and evaluation processes and design is included in the Preliminary Business Case.
- 10.2 The Preliminary Business Case would have benefitted from further discussion of plans to monitor and evaluate certain environmental impacts such as air quality or emission savings from the cleaner vehicle fleet. This should be addressed in future iterations.