The Melbourne Metro submission outlines a proposal for a new metro-style rail line that will provide 17 additional train services across Melbourne.

An updated capital cost estimate of $9 billion to $11 billion was provided in mid-2013 by the proponent. This brief is based on the business case provided previously for the 2012-13 assessments.

Objectives:

The project aims to increase the capacity and reliability of Melbourne’s public transport network to support the growth in demand driven by increasing population. Melbourne Metro aims to create six independent lines on the Melbourne network and introduce metro-style services across the network.

The implementation of Melbourne Metro will achieve stage five of the Victorian Government’s seven stage metropolitan rail upgrade program.

Problem:

The capacity of the existing transport network is constrained due to an increase in public transport use and increasing urban densification. There is an identified need to provide additional capacity in the inner city infill areas and greenfield development in the northwest and southeast of Melbourne.

Solution:

Melbourne Metro includes two 7.3 kilometre rail tunnels from west of South Kensington and east of South Yarra, connecting the Sunshine and Dandenong rail corridors via Melbourne CBD, but bypassing the congested inner core rail network. This will enable a new metro service linking the west, north, central and south-east regions of Melbourne and enable separation of other lines. The current proposal is designed to deliver the benefits of 24 additional city-bound train services per hour in peak periods with 17 additional services being assumed for business case.

The project is forecast to provide additional capacity for 24,000 passengers per hour initially, rising to 60,000 per hour when other capacity constraints of the network are removed. The proponent expects that 140,000 passengers will use the Melbourne Metro during the morning peak by 2030.

Proponent’s capital cost estimate: $9 - $11 billion

Contribution sought by Proponent including requests for project development funding: Not provided

Project timing Start/Completion by Proponent: Construction start January 2015, completion July 2022

BCR stated by proponent: 1.2 (P90, 7 percent discount rate)
Strategic alignment

Alignment with Infrastructure Australia’s strategic priorities:
Developing core public transport infrastructure to provide significant capacity increases to Melbourne’s existing network supports Infrastructure Australia’s priorities and is considered nationally significant. Melbourne Metro is expected to be a transformational project that will achieve long-term reshaping of the city and a significant increase in network capacity.

Alignment with state strategies:
The project was identified as part of the 2008 report Investing in Transport: East West Link Needs Assessment.

Problem assessment summary

Significant problem analysis has been undertaken for Melbourne Metro. The project addresses the constraints of the existing public transport system in Melbourne arising due to increased patronage and population growth. This is a nationally significant problem since it constrains access to high value employment in the CBD, limiting productivity increases.

Solution assessment summary

The preferred option is supported by the Office of the Infrastructure Coordinator. The Office is pursuing a number of questions around the project cost and the BCR.

Concept of operations

The key item identified within the project risk assessment, which all project benefits are dependent on, is that the planned 17 additional train services is operationally achievable on the network.

A review of the concept of operations completed by Infrastructure Australia indicates that the network modelling is robust. There is a high level of confidence that the planned additional network capacity will be delivered by the proposed infrastructure.

Positively, the review also found that the project’s internal governance arrangements related to control of the infrastructure scope are appropriate to ensure changes are not made without agreement of the operations planning team within the project.

Cost

The capital cost estimate is in the range of $9 billion to $11 billion.

Deliverability

The current program proposes around two years from issue of request for expressions of interest to contract close for the PPP contract.

Governance

The proposal outlines governance arrangements for the project development phase and advises that arrangements for the delivery phase will be updated when that phase commences. The proposal would be strengthened by providing direct representation on the project steering committee or the project control board of independent experts.

Given that some elements of the cost estimate are considered to be at the lower end of a reasonable range, the proposed procurement strategy is yet to be finalised and the procurement period is overly lengthy, the Office of the Infrastructure Coordinator recommends that a stronger governance framework is put in place to ensure robust oversight of the project’s implementation.
BCR appraisal conclusion

The total benefit cost ratio cited within the December 2012 business case is 1.17 using the P90 cost estimate and a 7 per cent discount rate.

Since then, the capital cost estimate has been revised, which is expected to impact on the BCR. Further information is required in order to assess the BCR, given this change in cost.

Infrastructure Australia Priority List recommendation

Melbourne Metro is a project that is expected to shape Melbourne’s future transport network and land use patterns. The preferred option presented could achieve up to 30 per cent capacity increase in the urban passenger rail network however the project cost is approximately equal to the benefits.

The level of information provided has been significantly strengthened through improved risk assessment, development of the concept of operations and improvements to the methodology used to determine the economic benefits.

It is recommended that the project be included on the 2013 Infrastructure Priority List at Threshold with the following conditions:

- The proponent addresses the specific items related to the cost estimate review;
- The proponent validates the economic appraisal presented with an updated third party review; and
- The proponent includes the direct representation of independent experts on the project steering committee or the project control board.
Attachment 1: Melbourne Metro Rail Tunnel
Attachment 2: City shaping impact of Total Melbourne Metro scheme