Public Accounts and Estimates Committee – 2023-24 Financial and Performance Outcomes Inquiry

Department of Transport and Planning query response

This document responds to the Committee Chair's request for additional information received 22 November 2024. It should be read in conjunction with the information already provided, available at: https://www.parliament.vic.gov.au/get-involved/inquiries/inquiry-into-the-2023-24-financial-and-performance-outcomes/questionnaires.

Information request:

- Question 11—PPP expenditure—existing and completed: The department was asked to list the benefits of using a PPP model versus other delivery/funding models. The department provided generic responses outlining the potential benefits of PPP models. The Committee requests specific information regarding the actual or expected benefits of using a PPP model for each individual project.
- Question 12—Alliance contracting expenditure—existing and completed: The department was asked to list the benefits of using an alliance contracting model versus other delivery/funding models. The department provided generic responses that outlined the potential benefits of alliance contracting models and replicated the same response for several projects. The Committee requests specific information regarding the actual or expected benefits of using an alliance contracting model for each individual project.

Public Private Partnership (PPP) expenditure

High Capacity Metro Trains

The Public Sector Comparator is a tool used to estimate the risk-adjusted cost of a project if it were to be delivered solely by the public sector. It considers the entire life-cycle cost, including design, construction, and maintenance.

The Net Present Cost for this project using the Public Sector Comparator is approximately $3.812 billion excluding transferred risk. The comparator includes capital costs of $1.506 billion, maintenance and lifecycle costs of $2.109 billion and transferred risks of $196.6 million.

Private sector delivery was estimated to be more cost-effective, with the project's contract cost at approximately $2.343 billion (i.e. an estimated savings of 38.5%).

Western Roads Upgrade

The packaging and procurement options for the Western Roads Upgrade were assessed in accordance with the Department of Treasury and Finance High Value High Risk Guidelines.

Following a procurement options assessment of the shortlisted procurement options, the availability-based PPP model was the highest ranked procurement option. This option was recommended and subsequently approved by the State for delivery of the project.

The key considerations in recommending an availability-based PPP model were:

- The model provides increased opportunity for the State to harness private sector innovation and structure a contract that incentivises whole-of-life efficiencies to arterial road investment.
- The bundling of construction and maintenance tasks under a long-term agreement can drive efficiency in delivery and asset management, subject to vigorous competition. Introducing private finance also provides additional discipline and scrutiny of risk, for example, financier due diligence and oversight. The PPP model can also be expected to deliver improved and more consistent road asset conditions under a PPP commercial structure involving an appropriate key performance indicator and abatement regime.

- On a 'whole-of-life' cost comparison basis, PPPs have been documented to deliver better value for money outcomes as compared to traditional contracting delivery methods (that is, separate, unbundled contracts) and have been successfully deployed across a range of sectors including roads in Victoria.

These benefits are not only limited to cost savings but also include improved and more consistent road asset conditions. A focus on longer term, 'whole-of-life' contracting also incentivises private sector innovation in terms of how best to maintain the asset over the term in the most cost-effective and efficient manner.

Melbourne Convention and Exhibition Centre – Stage 1

The PPP model was chosen because it enabled delivery of an integrated and coordinated development of the precinct, leveraging the private sector's expertise and efficiencies to achieve the best possible outcome. This includes providing the highest quality amenities and activating the precinct.

The model focused on delivering value for money by:

- Shifting the risks of design, construction, maintenance, and facility management to the private sector, which is best equipped to manage these risks. This approach encourages innovative and efficient long-term solutions.
- Increasing opportunities for the State to benefit from private sector innovation in complementary site activation (hotels, residential and commercial office towers, retail, and food and beverage etc.) which enhance the overall experience for both users and the wider community.
- Incentivising the private sector to complete the project on time and within budget, despite its complexity and large scale.

Melbourne Convention and Exhibition Centre – Stage 2

See response above.

Nyaal Banyul Geelong Convention and Event Centre

The PPP model was chosen because it enabled delivery of an integrated and coordinated development of the precinct, leveraging the private sector's expertise and efficiencies to achieve the best possible outcome. This includes providing the highest quality amenities and activating the precinct.

The model focused on delivering value for money by:

- Shifting the risks of design, construction, maintenance, and facility management to the private sector, which is best equipped to manage these risks. This approach encourages innovative and efficient long-term solutions.
- Increasing opportunities for the State to benefit from private sector innovation in complementary site activation (hotels, residential and commercial office towers, retail, and food and beverage etc.) which enhance the overall experience for both users and the wider community.
- Incentivising the private sector to complete the project on time and within budget, despite its complexity and large scale.

The Public Sector Comparator is a tool used to estimate the risk-adjusted cost of a project if it were to be delivered solely by the public sector. The table below provides a value-for money comparison – proposal comparable Public Sector Comparator versus final Plenary Conventions Proposal as at 31 October 2023:

Public Sector Comparator (Net Present Cost, $million)	Private sector contract (Net Present Cost, $million)	Estimated savings (Net Present Cost, $million)	Estimated savings (Net Present Cost, percent)
$551.6	$533.8	$17.8	3.2%

Metro Tunnel Project – Tunnel and Stations PPP

The packaging and procurement options for Metro Tunnel Project were assessed in accordance with the Department of Treasury and Finance High Value High Risk Guidelines and Infrastructure Australia's procurement guidelines.

The objectives and methodology used when arriving at the final packaging and procurement approach for Metro Tunnel Project are covered in detail in the publicly available Metro Tunnel Project Business Case (https://bigbuild.vic.gov.au/library/metro-tunnel/business-case).

The Tunnel and Stations work package includes the main tunnelling works, construction of five underground stations, station fit-out and mechanical and electrical systems along with oversite developments in the CBD. An availability-based PPP model was selected as the preferred procurement model for the Tunnel and Stations work package, with the contract including the finance, design, construction and maintenance of the tunnels and stations for a 25 year term.

As noted in the business case, some of the benefits the PPP model was anticipated to provide were a significant and robust scrutiny of and transfer of risk from the State to the private sector, for example in relation to delays and ground conditions, significant incentives for contractors to complete the project on time due to the financial incentives due on completion, drive a whole of life focus in relation to the design and construction of the works, provide certainty in respect of maintenance and facilities management services costs over the 25 year maintenance period and an extended defects rectification period.

West Gate Tunnel

The State adopted a PPP model for the West Gate Tunnel project for a range of reasons summarised in the Business Case, including:

- A PPP provides the opportunity for the State to transfer or manage the risks associated with the large and complex project which has significant interfaces.
- Introducing private finance offers the State a high level of protection from risk and multiple extra layers of discipline and scrutiny of risk.
- The scale and location of the project provides significant opportunities for innovation. The PPP model allows the State to access these solutions, providing significant scope for design and construction and whole of life innovation.
- Completion of the project will significantly augment a critical area of the existing transport network and the State may have some additional obligations to collaborate with the concessionaire on network changes that impact operational performance of the project road. These depend on the performance regime and detailed risk allocation in the PPP.

North East Link - Primary Package (Tunnels) and State Tolling Corporation

The packaging and procurement options for North East Link were assessed in accordance with the Department of Treasury and Finance High Value High Risk Guidelines. Following a procurement options assessment of the shortlisted procurement options, the availability-based Incentivised Target Cost PPP model was the highest ranked procurement option for the North East Link Project Primary Package (Tunnels). This option was recommended, and subsequently approved by the State, for delivery of this package. The key considerations in recommending this model were:

- Whole-of-life models such as PPPs offer comparative advantages predominantly in relation to ability to transfer more risk to the private sector and achieve certainty over cost outcomes. These advantages are critically important for a project of this scale, cost and complexity with specific regard to the tunnelling component of the works.
- PPP models have been selected for projects that involve tunnelling risk, including CityLink, EastLink and the Metro Tunnel Project (Tunnel and Stations) as it offers the State the strongest form of risk transfer.

- PPPs offer strong operational performance regimes with commercial incentives via key performance indicator and abatement regimes which are considered important for a project of this scale and length. PPP contractors are required to meet performance standards over the long-term while also optimising cost, which means they proactively manage the asset over the long-term in accordance with how it was constructed and how it must perform under the contract and must also continue to invest in lifecycle / asset replacement.
- The PPP enables private sector innovation in terms of how best to maintain and operate the asset over the term in the most cost effective and efficient manner – while still meeting performance criteria. Innovation is important given the scale, complexity and location of the project.
- Timing is critical for this project, not only in addressing the traffic problems identified in the Business Case but also as the State relies on toll revenues as key funding source for the project. Overall, it has been found that 'whole-of-life' procured projects resulted in timely completion compared to traditional procurement models.
- Utilising private finance introduces additional discipline and scrutiny of risk which drives operational performance and an improved understanding, mitigation and pricing of risk and cost to the benefit of the State.

The North East Link procurement strategy has been adapted over time to achieve the optimal outcomes for the State in terms of value for money and the effective management of risk and interfaces, noting the significant scale and complexity of the project, and responding to changing market conditions.

The Primary Package procurement model was adapted to include an Incentivised Target Cost risk or reward regime within the PPP framework to enable more collaborative, 'best for project' behaviours and greater sharing of cost risk, recognising that an appropriate cost risk sharing regime may overcome the pricing challenges that are often presented on mega infrastructure projects.

Alliance contracting expenditure

Rail Systems Alliance

The packaging and procurement options for the Metro Tunnel Project were assessed in accordance with the Department of Treasury and Finance High Value High Risk Guidelines and Infrastructure Australia's procurement guidelines. The objectives and methodology used when arriving at the final packaging and procurement approach for Metro Tunnel Project are covered in detail in the publicly available Metro Tunnel Project Business Case (https://bigbuild.vic.gov.au/library/metro-tunnel/business-case).

The Rail Systems work package included the design of highly complex conventional signalling, High Capacity Signalling, train and power control systems and information and communication technology, brownfield installation works, and integration and commissioning of these systems. A competitive alliance contracting model was selected as the procurement model for the Rail Systems work package.

As noted in the business case, the competitive alliance contract model was anticipated to provide the best commercial model for development of a value for money rail systems solution, providing incentives for all parties to work together and coordinate key stakeholders' involvement in the rail systems design and installation avoid unnecessary delays. The model was also anticipated to provide price and budget certainty, drive innovation by aligning parties on 'best for project' outcomes along with flexibility and collaboration in the design process.

Rail Infrastructure Alliance

The packaging and procurement options for the Metro Tunnel Project were assessed in accordance with the Department of Treasury and Finance High Value High Risk Guidelines and Infrastructure Australia's procurement guidelines. The objectives and methodology used when arriving at the final packaging and procurement approach for Metro Tunnel Project are covered in detail in the publicly available Metro Tunnel Project Business Case (https://bigbuild.vic.gov.au/library/metro-tunnel/business-case).

The Rail Infrastructure work package involved extensive works to be undertaken near the live rail network and involved interfaces with rail franchisees and freight services. The works required significant occupations and complex interfaces with the tunnel and stations works. A competitive alliance contracting model was selected as the procurement model for the Rail Infrastructure work package.

As noted in the business case, the competitive alliance contract model was anticipated to provide the best commercial framework for the management of interface risks in a live rail environment and the best framework for management and timely resolution by the parties of delays. The model was also anticipated to provide a level of price and budget certainty and drive value-for-money outcomes using appropriate key performance indicators. Further benefits identified included driving innovation and incentive through aligning the parties on 'best for project' outcomes along with flexibility to deal with any necessary changes in scope, design or construction method.

North East Link Connections

The packaging and procurement options for North East Link were assessed in accordance with the Department of Treasury and Finance High Value High Risk Guidelines. Following a procurement options assessment of the shortlisted procurement options, the alliance model was the highest ranked procurement option for the M80 Ring Road Upgrade and Eastern Freeways Upgrades packages. This option was recommended and subsequently approved by the State for delivery of these packages.

These packages directly interface with the North East Link Tunnels package. The delivery of these packages will be carried out in a complex brownfield, live traffic environment on two of Victoria's busiest freeways (Eastern and M80) over an extended period of construction. A critical factor for the success of the North East Link Program is the effective management of disruption and staging of the works in this environment, with design and construction that spans multiple interfaces and packages and the achievement of project wide program requirements.

The key considerations in recommending the alliance model for these packages included:

- Flexibility to address delivery challenges – multiple design and construction interfaces, between the North East Link Tunnels package and adjacent packages, require flexibility to respond to change to achieve the desired project-wide outcomes. The alliance model enables the M80 Ring Road Upgrade and the Eastern Freeway Upgrades to be responsive to change and provides incentives to drive project-wide outcomes. The alliance model provides a more collaborative approach to design through iterations between packages on key scope issues during both tender and delivery of the packages, and Increased flexibility to reduce the impact to the road network conditions.
- Risk Transfer and Management – alliancing is considered appropriate for projects where the State has a reduced ability to transfer material risks and complexities such as the interface between the packages to the private sector, and hence the private sector's ability to scope and price risks effectively is also reduced. The alliance model also enables effective risk management through design and construction by facilitating an environment in which the contractor and the State work together to de-risk scope and engage in constructive dialogue to solve issues in a collaborative manner.
- Integrated Team – the State and private sector are integrated and work collaboratively to resolve risks and issues that are identified during design and construction.

M80 Ring Road Upgrade (Greensborough)

See response at 'North East Link Connections' above.

Eastern Freeway Upgrade

See response at 'North East Link Connections' above.

Level Crossing Removal Program (metropolitan various)

The Level Crossing Removal Project was established in 2015 by the Victorian Government to initially deliver 50 level crossing removals by 2022. Since then, the program of works has expanded to comprise 110 level crossing removals by 2030 and a range of other significant rail network and tram network upgrades.

The project underwent a procurement options analysis as part of the business case and delivery strategy. The analysis considered procurement options across a range of criteria, including risk management, cost, time, interface and stakeholder management, flexibility and innovation and market interest and capacity.

In 2017, Government approved the Level Crossing Removal Project business case and approved the recommendation to adopt a collaborative program alliance model. The alliance model was considered the preferred procurement method to manage the associated risks with this project, as well as several project-specific challenges, particularly operational and brownfield rail work which is inherently complex and high risk because it's delivered in a 'live' brownfield rail corridor.

There are two different forms of alliance models:

- Project alliance model: This is where an Alliance is formed to deliver a single project and
- Program alliance model: This is where an alliance is formed to deliver a series of projects, often within a broader program of works and over an extended period of time.

The benefits of an alliance model include:

- Risks and opportunities are shared to overcome project issues more quickly, avoid risk premiums and adversarial behaviour.
- Facilitates active participation by the State.
- Key stakeholders are incentivised in alignment with delivery partners.
- Cost risk and reward regime incentivises all participants to deliver efficiently.
- Performance risk and reward regime incentivises meeting other State objectives in excess of project objectives (i.e. skills, sustainability, diversity).
- Same team developing and delivering the project, resulting in the State having earlier visibility of the true project costs.
- Project costs are open book and transparent locked in commercial terms.

In instances where a series of projects are to be delivered within a broader program of works a program alliance model offers these additional benefits:

- Promotes a more collaborative commercial environment and more collaborative commercial behaviours (due to the certainty that comes with a future pipeline of work) than on single project alliances.
- Speeds up and reduces the cost of the procurement process, enabling alliances to develop and deliver higher quality proposals with a reduced risk profile.
- There is less constrained engagement with key utility providers and stakeholders, who despite controlling some of the higher risk elements of a project, are typically reluctant to engage with multiple bidding partners during a competitive procurement process. Unconstrained on-site investigations and survey also ensure key risks are better defined and mitigated before the commencement of tender design.
- Provides greater opportunity for cost efficiencies through the adoption of technical innovation and solution re-use on successive multiple projects in a pipeline of work and provides greater opportunity to establish relationships with key stakeholders, and to enter longer-term partnerships with the supply-base, providing greater value - for-money opportunities.

- Industry is incentivised to share all intellectual property and best practice with their competitors, rather than hold it for their own commercial advantage, therefore accelerating industry change and innovation.
- Continuity of resourcing ensures that lessons learnt and experience are carried from package-to-package.

The Level Crossing Removal Project program alliance model is a collaborative, shared risk, performance-based model comprising five program alliances who are in ongoing competition with both Level Crossing Removal Project and each other to deliver work packages over multiple years (2030 marks the end of the 110 level crossing removals program). Performance is continually assessed across delivery metrics to create the opportunity for ongoing allocations of work packages.

This model is the preferred model for the complex rail infrastructure projects in its remit which are delivered in brownfield environments that require significant stakeholder involvement, particularly given the need to coordinate critical path occupations within an operating rail network and extensive interfaces with existing rail infrastructure.

85 by 2025 (Level Crossing Removal) (metropolitan various)

Delivered as part of the Level Crossing Removal Program, this project was delivered in conjunction with other works in the program. Benefits of using the program alliance model are listed above.

Twenty five more level crossing removals by 2030 (Level Crossing Removal) (metropolitan various)

Delivered as part of the Level Crossing Removal Program, this project was delivered in conjunction with other works in the program. Benefits of using the program alliance model are listed above.

Metropolitan Network Modernisation Program (metropolitan various)

Delivered as part of the Level Crossing Removal Program, this project was delivered in conjunction with other works in the program. Benefits of using the program alliance model are listed above.

Berwick Bus Interchange (Berwick)

Delivered by LXRP, this project was delivered in conjunction with other works in the program. Benefits of using the program alliance model are listed above.

Car Parks for Commuters Program (statewide)

Partly delivered by LXRP, this project was delivered in conjunction with other works in the program. Benefits of using the program alliance model are listed above.

Caulfield rationalisation works (metropolitan various)

Partly delivered by LXRP, parts of the project were delivered in conjunction with other works in the program. The alliance model is the preferable model for complex rail infrastructure projects of this nature which are delivered in brownfield environments that require significant stakeholder involvement, particularly given the need to coordinate critical path occupations within an operating rail network and extensive interfaces with existing rail infrastructure. Benefits of the LXRP's Program Alliance model are listed above.

City Loop fire and safety upgrade (stage 2) and intruder alarm (Melbourne)

Delivered by LXRP, the alliance model is the preferable model for complex rail infrastructure projects of this nature which are delivered in brownfield environments that require significant stakeholder involvement, particularly given the need to coordinate critical path occupations within an operating rail network and extensive interfaces with existing rail infrastructure. Benefits of the LXRP's program alliance model are described above.

Dandenong Corridor Readiness Works

Partly delivered by LXRP, parts of the project were delivered in conjunction with other works in the program. The alliance model is the preferable model for complex rail infrastructure projects of this nature which are delivered in brownfield environments that require significant stakeholder involvement, particularly given the need to coordinate critical path occupations within an operating rail network and extensive interfaces with existing rail infrastructure. Benefits of LXRP's program alliance model are described above.

Hurstbridge Line Upgrade Stage 2 (metropolitan various)

Delivered by LXRP, the alliance model is the preferable model for complex rail infrastructure projects of this nature which are delivered in brownfield environments that require significant stakeholder involvement, particularly given the need to coordinate critical path occupations within an operating rail network and extensive interfaces with existing rail infrastructure. Benefits of LXRP's program alliance model are described above.

Melton Line Upgrade (statewide)

To be delivered by LXRP, in conjunction with other works in the program. The alliance model is the preferable model for complex rail infrastructure projects of this nature which are delivered in brownfield environments that require significant stakeholder involvement, particularly given the need to coordinate critical path occupations within an operating rail network and extensive interfaces with existing rail infrastructure. Benefits of LXRP's program alliance model are described above.

New Tarneit railway station (Tarneit)

To be delivered by LXRP, the alliance model is the preferable model for complex rail infrastructure projects of this nature which are delivered in brownfield environments that require significant stakeholder involvement, particularly given the need to coordinate critical path occupations within an operating rail network and extensive interfaces with existing rail infrastructure. Benefits of LXRP's program alliance model are described above.

South Dynon Train Maintenance Facility Stage 1 (statewide)

Delivered by LXRP, the alliance model is the preferable model for complex rail infrastructure projects of this nature which are delivered in brownfield environments that require significant stakeholder involvement, particularly given the need to coordinate critical path occupations within an operating rail network and extensive interfaces with existing rail infrastructure. Benefits of the LXRP's program alliance model are described above.

South Dynon Train Maintenance Facility Stage 2 (statewide)

Delivered by LXRP, the alliance model is the preferable model for complex rail infrastructure projects of this nature which are delivered in brownfield environments that require significant stakeholder involvement, particularly given the need to coordinate critical path occupations within an operating rail network and extensive interfaces with existing rail infrastructure. Benefits of LXRP's program alliance model are described above.

Tram Infrastructure Upgrades (metropolitan various)

Partly delivered by LXRP (Maidstone Tram Maintenance Facility), the alliance model is the preferable model for tram infrastructure projects of this nature which are delivered in brownfield environments that require significant stakeholder involvement, particularly given the need to coordinate critical path occupations within an operating tram network and interface with existing rail infrastructure. Benefits of LXRP's program alliance model are described above.

Regional Rail Revival – Gippsland Line Upgrade Stage 1 (regional various)

These projects underwent a procurement options analysis as part of the business case and delivery strategy. The analysis considered procurement options across a range of criteria, including risk management, cost, time, interface and stakeholder management, flexibility and innovation and market interest and capacity. The project alliance model was considered the preferable procurement method to manage the associated risks with this project. The alliance model is the preferable model for complex rail infrastructure projects of this nature which are delivered in brownfield environments that require significant stakeholder involvement, particularly given the need to coordinate critical path occupations within an operating rail network and extensive interfaces with existing rail infrastructure. Benefits of the alliance model are listed above.

Regional Rail Revival – Shepparton Line Upgrade – Stage 2 (Shepparton)

These projects underwent a procurement options analysis as part of the business case and delivery strategy. The analysis considered procurement options across a range of criteria, including risk management, cost, time, interface and stakeholder management, flexibility and innovation and market interest and capacity. The project alliance model was considered the preferable procurement method to manage the associated risks with this project. The alliance model is the preferable model for complex rail infrastructure projects of this nature which are delivered in brownfield environments that require significant stakeholder involvement, particularly given the need to coordinate critical path occupations within an operating rail network and extensive interfaces with existing rail infrastructure. Benefits of the alliance model are listed above.

Regional Rail Revival – Shepparton Line Upgrade – Stage 3 (Shepparton)

These projects underwent a procurement options analysis as part of the business case and delivery strategy. The analysis considered procurement options across a range of criteria, including risk management, cost, time, interface and stakeholder management, flexibility and innovation and market interest and capacity. The project alliance model was considered the preferable procurement method to manage the associated risks with this project. The alliance model is the preferable model for complex rail infrastructure projects of this nature which are delivered in brownfield environments that require significant stakeholder involvement, particularly given the need to coordinate critical path occupations within an operating rail network and extensive interfaces with existing rail infrastructure. Benefits of the alliance model are listed above.

Regional Rail Revival – Waurn Ponds Track Duplication – Stage 2 (regional various)

These projects underwent a procurement options analysis as part of the business case and delivery strategy. The analysis considered procurement options across a range of criteria, including risk management, cost, time, interface and stakeholder management, flexibility and innovation and market interest and capacity. The project alliance model was considered the preferable procurement method to manage the associated risks with this project. The alliance model is the preferable model for complex rail infrastructure projects of this nature which are delivered in brownfield environments that require significant stakeholder involvement, particularly given the need to coordinate critical path occupations within an operating rail network and extensive interfaces with existing rail infrastructure. Benefits of the alliance model are listed above.