

Construction Leadership Group

Construction
Procurement
Methods

Industry Discussion Paper
December 2018



Introduction

This Industry Discussion Paper, prepared for the Construction Leadership Group (CLG), has been developed to inform industry engagement on different types of procurement models that have been used across New South Wales.

It is intended to serve as a basis for discussion for government and industry to identify and consistently define the most commonly used procurement methods, including variations of those models and the features of them. The CLG, representing the major construction procurement agencies of the NSW Government, has committed to procure projects in a more collaborative way.

This commitment includes conducting early market engagement to elicit industry views on the best choice of procurement pathway for each major project, and (where appropriate) for each works package within that project, drawing on good practice in NSW and other jurisdictions.

NSW Government agencies are also finding that circumstances require them to adopt expedited engagement processes like Early Contractor Involvement (ECI) where a project's risk profile justifies it and where it saves time and resources without sacrificing value for money.

CLG has also agreed to develop and publish, in partnership with industry, simple guidelines which document contemporary and best practice for each of the main procurement methods and the circumstances in which each method is likely to be the best option.

This document aims to facilitate industry engagement on the development of the guidelines. The goals of the industry engagement are to:

- » identify industry drivers for determining selection of the most appropriate procurement method for each project;
- » identify preferred procurement methods; and
- » agree on definitions of procurement methods.

Once finalised, the guidelines will support Government and industry to collaboratively determine the best procurement method for each project.

Request for Feedback

The CLG invites interested parties (Respondents) to make a formal submission (Submission) to provide feedback and comments on this discussion paper to inform the development of the guidelines. Feedback and comments can be submitted to

CLG@treasury.nsw.gov.au by no later than 15 February 2019.

The CLG may decide to publish the Submissions on the Infrastructure NSW website at the end of the consultation process. A Respondent must clearly identify any part of its Submission which contains confidential information. Automatically generated confidentiality statements in emails do not suffice for this purpose. Any confidential information should be marked as 'confidential' and be provided in a separate document.

Respondents authorise the CLG to use, copy, adapt, modify and reproduce the whole or any portion of their Submission for the purposes of the development of the guidelines whether or not confidentiality is claimed with respect to the whole or any part of a Submission.

Procurement methods

Whilst there are endless variants of procurement methods, the CLG has attempted to aggregate the methods into the following types:

Traditional Category:

- » Construct Only
- » Design Finalisation & Construct
- » Design & Construct
- » Design, Construct & Maintain
- » Cost Plus

Relationship and Collaborative Contracting Category:

- » Managing Contractor
- » Early Contractor Involvement (leading to either traditional contract or relationship/collaborative contract)
- » Framework Agreement
- » Incentivised Target Cost
- » Alliance Agreement
- » Collaborative Client contractor
- » Delivery Partner or Construction Management

Private Public Partnerships Category:¹

- » Build, Own, Operate and Transfer (BOOT)
- » Design, Build, Finance and Operate (DBFO)
- » Design, Build, Finance and Maintain (DBFM)
- » Design, Build, Operate and Maintain (DBOM)
- » Design, Construct and Maintain (DCM)
- » Market-Led Proposals directly related to PPP contracts or that progress as PPP contracts

Note that the above procurement methods are not mutually exclusive. For example, a collaborative contracting method above may be used in a PPP structure.

Labels in this context can be ambiguous, and a detailed description of each type has been set out in the appendices to this document. These descriptions are intended to guide NSW Government agencies as they engage with market participants to explore the best method for procuring a particular project (or component of a project).

For each method, the appendix sets out:

- » the circumstances in which a particular method may be selected;
- » the benefits and risks of each method;
- » the skills required by each of the Contractor and the Procuring Agency;
- » any existing policy to guide the use of the method.

Each appendix also provides an example of a project that has used the particular method, offering guidance on the appropriate circumstances for a method's selection as well as the opportunity for the sharing of lessons learned as part of the industry engagement process.

¹ The CLG recognises that there are effective Public Private Partnerships guidelines which apply in various jurisdictions and this document is not intended to replace those guidelines.

Selecting a procurement method

Choosing the most appropriate procurement method for a project is critical to achieving the project's objectives on terms which represent value for money. Procuring the right scope of work, with the correct counterparty, with the right risk allocations supported by the right contract are essential. Having the right skills and behaviours on both sides is also critical.

Engagement with industry and stakeholders more generally can highlight market conditions or other contextual factors which may mean that decisions of procurement method differ over time for ostensibly similar projects – the technical nature of the project is just one element to be considered in method selection.

Proposed criteria for selecting options include the extent to which the proposed method will optimise for:

- » whole-of-project costs, including costs of risks retained by the Government;
- » whole-of-life benefits;
- » alignment with the project/program objectives;
- » budget certainty;
- » timeframes, including procurement timeframes, and the ability to meet the Government's requirements such as completion dates;
- » market capacity, capability and interest;
- » flexibility to allow changes over time (this would include change to scope, as well as future phases/additional stages);
- » the allocation of risk to the party best placed to manage it. Key risks include: design, construction, maintenance, operating, financing, technology, delivery, user demand, cost/budget certainty and interface risk;
- » innovation;
- » project risks; and
- » certainty of scope.

Government, through CLG, has heard strong industry feedback on risk allocation and consistency of contracting form. Engaging with industry on the procurement method before procuring agencies launch tenders into the market is important to agreeing the right risk allocation between all parties. CLG recognises that not all risks are capable of being fully assessed, priced, managed or absorbed by the private sector, and that such risks must be managed collaboratively – including risks related to utilities, planning approvals and latent conditions.

CLG is also committed to seeking industry's views on any other areas in which value for public money and industry sustainability could most readily be improved through risk-sharing and appropriate procurement method selection.

CLG is championing the development of standard contractual risk-sharing mechanisms for these items which keep both parties appropriately incentivised. We do not want to unreasonably put the contractor's overall viability at risk, but will not necessarily bail them out in all circumstances, particularly if the contractor is at fault. It intends to develop standardised legal language for these risk-sharing mechanisms to reduce the cost of doing business for both Government and industry. This discussion paper is an important step on that journey.

APPENDICES

In all of the appendices, the key parties are defined as follows:

| Party | Definition |
|--------------------------------|---|
| Client | The agency for whose benefit the construction project is carried out. |
| Procuring Agency | The agency responsible for sourcing, quotations, negotiations, planning, coordinating, tenders, etc. for the project, and who procures the design and construction of the project. The Procuring Agency is usually the contracting Principal. |
| Contract Superintendent | The party that administers the contract and ensures that contractual obligations are performed. Note that there is no “Superintendent” for GC21, the NSW Procurement Contract used by many Government agencies. Under GC21, the parties each have “Authorised Persons”. |
| Design Team | Develops the project brief and concept options with sufficient details to demonstrate its viability and costs. |
| Contractor | The party who performs (design and) construction work on a contract basis for the project. |
| Subcontractor | A person who is engaged through a main contractor to perform a specific task as part of the overall project. |

APPENDICES

Traditional Category

| Method | Construct Only |
|----------------------------------|---|
| Description | <ul style="list-style-type: none"> » Contractor engaged to construct only » Typically fixed price contract » Procuring Agency provides design » Designs are fully documented to construction-ready standard » Tendering costs lower compared to a D&C |
| Conditions for use | <ul style="list-style-type: none"> » Projects capable of being fully designed to construction-ready status by the client » Client must control design » Ground or latent conditions are well known or manageable » Well-defined scope » Limited innovation » Suitable for projects that are standardised or potentially repetitive |
| Contractor skills | <ul style="list-style-type: none"> » Construction management |
| Procuring Agency skills | <ul style="list-style-type: none"> » Scope definition » Detailed design management and procurement » Stakeholder management » Variation management » Contract management |
| Benefits | <ul style="list-style-type: none"> » Broadest range of contractors able to participate (depending on project scale) » Full control of outcome by the Procuring Agency » Economies of scale where multiple identical elements being delivered in different locations » Construction price certainty |
| Risks and risk allocation | <ul style="list-style-type: none"> » Procuring Agency retains constructability risk – structure, services, functionality all determined and owned by Client » Design/integration risk » Lack of price certainty around unknown ground/latent conditions » Price certainty may be illusory if design inadequate or requires significant variation to be delivered, or if latent conditions manifest » Adequate design and construction contingency required » Procuring Agency retains town planning and approvals risks » Requires absolute clarity on risk allocation for ground and other latent conditions – likely retained by Client. Contractor is at risk for site conditions to the extent that is disclosed in Principal's investigations » Risk of unknowns is with Principal |
| Contracting form | <ul style="list-style-type: none"> » GC21 |
| Example(s) | <ul style="list-style-type: none"> » RMS – TNR3, BR3 |

| Method | Design Finalisation & Construct |
|--------------------------------|---|
| Description | <ul style="list-style-type: none"> » Client designs to 100% schematic and 70% detailed design » Full project scope needs to be defined and documented prior to tender. Contractor will not be able to price unknown scope. » Contractor completes detailed design and constructs » Typically fixed price agreed » Existing Design Team may be novated or Contractor brings own team » Contractor is responsible for, and assumes risk for, final design and constructability » Typically used for projects valued between \$30m and \$200m » Tendering costs to contractors may be high |
| Conditions for use | <ul style="list-style-type: none"> » Projects where client can develop schematic design » Components of projects are standardised or potentially repetitious » Opportunity for benchmarking and reliance on past project precedents » Contractor best placed to manage detailed design engagement with Client and take risk on original design » Suited to greenfield projects where the risk can be assessed and priced |
| Contractor skills | <ul style="list-style-type: none"> » Design management/design finalisation » Stakeholder management » Construction management including constructability » Design and services coordination – particularly engagement with D&C services subcontractors » BIM management |
| Procuring Agency skills | <ul style="list-style-type: none"> » Scope definition » Design management/design procurement » Variation/budget management » Contract management |
| Benefits | <ul style="list-style-type: none"> » Final design developed/owned by contractor – commercial alignment between design and constructability particularly if (schematic) design team is novated to contractor » Contractor innovation (at least partially) able to be designed into project during detailed design phase – schematic design may preclude some innovation » Allows for different/proprietary process/equipment solutions » Price certainty and can be priced in different tranches – design management and construction components |

| Method | Design Finalisation & Construct |
|----------------------------------|---|
| Risks and risk allocation | <ul style="list-style-type: none"> » Ownership design/liability for constructability » The risk of variations or unforeseen constructability issues arise between schematic and detailed design is reduced. Resolution is contractor-driven » Risk allocation for site conditions to contractor is to the extent that is disclosed in Principal's investigations » Risk of unknown site condition is with the Principal » Town planning and approvals risks likely to be retained by Client (with appropriate allocation of condition responsibilities to Contractor) » Require absolute clarity on risk allocation for ground and other latent conditions – Contractor may undertake due diligence as part of detailed design work. Contractor is at risk for site conditions to the extent that is disclosed in Principal's investigations. |
| Contracting form | » GC21 |
| Example(s) | » Multiple smaller regional health projects |

| Method | Design & Construct |
|--------------------------------|--|
| Description | <ul style="list-style-type: none"> » Client designs to concept design level » 100% of project scope is documented in functional brief, i.e. no “missing” scope » Contractor completes detailed design » Typically fixed price and time agreed » Contractor is responsible for (and assumes risk for) final design and constructability » Client may pay a premium to transfer design risks to the contractor » Tendering cost to contractors may be relatively higher due to cost of design works » The client generally engages first a consultant to prepare preliminary design and second a contractor to complete the design and to construct the relevant works. The contractor may subcontract works to others |
| Conditions for use | <ul style="list-style-type: none"> » Projects where client can develop concept design » Contractor best placed to manage design engagement with client and take risk on design » Suited to Greenfield and Brownfield projects where the risk can be assessed and priced » Opportunity for innovation in design |
| Contractor skills | <ul style="list-style-type: none"> » Design management/design development and finalisation » Stakeholder management » Construction management » Building information model (BIM) and digital engineering |
| Procuring Agency skills | <ul style="list-style-type: none"> » Scope definition » Concept design development » Variation/budget management » Contract management » Whole-of-life requirements |

| Method | Design & Construct |
|----------------------------------|--|
| Benefits | <ul style="list-style-type: none"> » Design developed/owned by Contractor – commercial alignment between design and constructability » Contractor innovation able to be designed into project » Price certainty and can be priced in different tranches; design management and construction components » Price and risk certainty greater with time and procurement risk taken by contractor » The client deals with a single entity over the life of the project, which reduces the client’s risk as the contractor becomes a single point of contact for design and construction issues » Construction phase can be fast-tracked as the construction tender can commence immediately once the project brief and concept designs are defined and drafted » The client can utilise a contractor’s full expertise by enabling the integration of the contractor’s design and construction experience. This drives construction innovation, as well as design and construction efficiencies » Reduced likelihood of significant variations or unforeseen constructability issues arise between concept and detailed design |
| Risks and risk allocation | <ul style="list-style-type: none"> » Price includes design/constructability risk absorbed by Contractor » Design outcome controlled by Contractor » Contractor has a low focus on lifecycle costs and considerations including quality. Project will be designed and constructed at the lowest cost to meet the minimum requirements set out in the Works Brief and detailed performance » May discourage innovation (due to over pre-specifications) » Town planning and approvals risks unlikely to be passed to contractor (but contractor assumes appropriate approval condition responsibilities) » Design development may be difficult to distinguish from a variation which may be a source of disputes » Promotes an adversarial relationship between the client and contractor » Contract price may include a risk premium to reflect increased contractor risk |
| Contracting form | <ul style="list-style-type: none"> » GC21 |
| Example(s) | <ul style="list-style-type: none"> » Batemans Bay Bridge, Albion Park Rail Bypass, Richmond River Bridge, Glenfield to Leppington Rail Line |

| Method | Cost Plus, a.k.a. Cost Reimbursable |
|---------------------------------|--|
| Description | » A Contractor is paid for all actual allowed expenses plus additional payment for their profit margin |
| Conditions for use | <ul style="list-style-type: none"> » Works that are unable to substantially costed » Meticulous record keeping by both parties » When there is an emergency and no time to negotiate a contract and the work is more important than its cost |
| Contractor skills | <ul style="list-style-type: none"> » Construction and deliverability » Meticulous record keeping |
| Procuring Agency skills | <ul style="list-style-type: none"> » Skilled contract management » Cost management and cost auditing |
| Risk and Risk allocation | <ul style="list-style-type: none"> » Risk that if the works are out of control, there is little incentive for the Contractor to have the job done quickly and inexpensively » Risk of a cost blow-out, requires a high level of trust in the Contractor » Unknown exactly how much a project will cost from the outset, making it difficult to budget » Works can drag on over an extended period of time with no penalty to the Contractor » Contractor may deliberately incur higher cost in order to increase profit |
| Contracting form | |
| Example(s) | » Main North and North Shore Corridor Portion 7 |

Relationship and Collaborative Contracting Category

| Method | Managing Contractor – Single Stage |
|--------------------------------|--|
| Description | <ul style="list-style-type: none"> » Client or Managing Contractor designs project » Final design and constructability responsibility sits with the client or Managing Contractor » Contractor provides construction/site management and subcontractor procurement » Open book subcontractor/materials tendering (plus management fee) » Tendering costs lower (where there is no design involved) compared to D&C » The client enters into a contract with the managing contractor, who then subcontracts out all of its design and construction obligations. Selection of subcontracts is carried out in close consultation with the client who has the right to veto any subcontractors that are not acceptable to the client. » Typically lump sum plus reimbursable components. » The client reimburses managing contractor for all amounts paid to subcontracts and consultants. » May include a target cost option with an additional pain-share/gain-share regime » ‘Best endeavours’ obligation to achieve completion on time |
| Conditions for use | <ul style="list-style-type: none"> » Projects that require maximum design flexibility through all stages of delivery » Client agency has some design and contractor management skills » Client desires high visibility of subcontractor pricing » Suited to greenfield projects where the risk can be assessed and priced |
| Contractor skills | <ul style="list-style-type: none"> » Construction and procurement management |
| Procuring Agency skills | <ul style="list-style-type: none"> » Scope definition » Design management/design procurement » Variation/budget management » Contractor management |
| Benefits | <ul style="list-style-type: none"> » Client flexibility » Transparency of subcontractor pricing » Early engagement of managing contractor encourages whole-of-life involvement from inception to delivery phase » Client harnesses management skills of contractor |

Risks and risk allocation

- » Significant cost variations or unforeseen constructability issues
- » Client retains all ground/latent condition risks
- » Town planning and approvals risks typically retained by Client
- » Ground and other latent conditions – risks retained by Client
- » Limited certainty in cost and time outcome at the start of project commitment
- » Extensive consultative process may add to the cost and duration of the project
- » Considerable skill is required in the client’s contract administration

Contracting form

- » GC21 with special conditions (adapted for Managing Contractor)

Example(s)

- » Defence model, Prison Bed Capacity Program, Clyde Junction, Liverpool Turnback
-

| Method | Managing Contractor – Two Stage |
|--------------------------------|---|
| Description | <ul style="list-style-type: none"> » Contractor designs project with Client input during cost estimate preparation » Contractor is responsible for final design and constructability » Contractor provides construction/site management and subcontractor procurement » Open book subcontractor/materials tendering (plus margin) » Risk Reward Incentive of cost performance » Tendering costs are low (where there is no design involved) due to costs being reimbursed during Total Cost Estimate development » The client enters into a contract with the managing contractor, who then subcontracts out all of its design and construction obligations. Selection of subcontracts is carried out in close consultation with the client who has the right to veto any subcontractors that are not acceptable to the client. » Typically lump sum plus reimbursable components. » The client reimburses managing contractor for all amounts paid to subcontracts and consultants. » May include a target cost option with an additional pain-share/gain-share regime » ‘Best endeavours’ obligation to achieve completion on time |
| Conditions for use | <ul style="list-style-type: none"> » Projects where Client wants innovation and constructability, but retain some influence » Projects that require maximum design flexibility through all stages of delivery » Client desires high visibility of subcontractor pricing » Suited to greenfield and brownfield projects where the risk can be investigated and then priced |
| Contractor skills | <ul style="list-style-type: none"> » Construction and procurement management » Stakeholder management » Cost planning/management » Value engineering |
| Procuring Agency skills | <ul style="list-style-type: none"> » Scope definition » Concept design procurement » Variation/budget management » Greater flexibility than D&C for undefined scope/design » Provides more owner control and input into design, constructability and delivery compared to D&C |

| Method | Managing Contractor – Two Stage |
|----------------------------------|---|
| Benefits | <ul style="list-style-type: none"> » Client flexibility » Clear risk allocation – shared » Transparency of subcontractor pricing » Early engagement of managing contractor encourages whole-of-life involvement from inception to delivery phase » Client harnesses management skills of contractor |
| Risks and Risk allocation | <ul style="list-style-type: none"> » Significant cost variations or unforeseen constructability issues » Client retains all ground/latent condition risks » Client intensive for procurement phase to drive outcomes » Program risk if Total Cost Estimate fails » Lack of competitiveness in pricing the delivery phase can potentially lead to increase in costs and difficulty demonstrating value for money » High level of Client input required to ensure that the project solution and agreed delivery phase price represent value for money » Town planning and approvals risks retained by Client » Ground and other latent conditions – contractor » Limited certainty in cost and time outcome at the start of project commitment » Extensive consultative process may add to the cost and duration of the project » Considerable skill is required in the client’s contract administration |
| Contracting form | <ul style="list-style-type: none"> » GC21 |
| Policy & approvals | <ul style="list-style-type: none"> » Tender assessment based on preliminaries, design and management fee » Subject to development of an acceptable Total Cost Estimate in Stage 2 |
| Example(s) | <ul style="list-style-type: none"> » Defence model, Newcastle Light Rail, Transport Access Program |

| Method | Early Contractor Involvement |
|---------------------------|--|
| Description | <ul style="list-style-type: none"> » Client develops functional brief which informs a concept or schematic design and a pre-tender estimate for construction » Contractor procurement process – two elements bid: <ul style="list-style-type: none"> > Design management (planning) phase – Contractor bids (fixed) price to develop design to schematic and/or detailed design; and > Contractor also bids a Target Lump Sum Price together with fixed preliminaries, margin and overheads required to deliver the project » Client assesses price and non-price elements of bidders’ submissions and selects preferred Contractor for design management (planning) phase based on price and non-price assessment » Contractor awarded the design management phase and then undertakes design management task » Design ownership/IP remains with Client » Contract may prescribe value sharing for Contractor innovation – incentives shared where innovation brings project in under target Lump Sum Prices have to be sufficient for Contractor and fair to client » Contractor develops (in parallel with design phase) a detailed target Lump Sum offer using the bid prelims, margins and overheads and supported by trade coverage » If Lump Sum offer acceptable to Client, then Contractor awarded job » If Lump Sum offer not acceptable to Client, then design tendered in market » Tendering costs are low due to costs being reimbursed during Total Cost Estimate development |
| Conditions for use | <ul style="list-style-type: none"> » Projects where Client can develop scheme design and pre-tender estimate with sufficient certainty to assess Target Lump Sum » Components of projects are standardised » Contractor best placed to manage detailed design engagement with Client and take risk on final design » Design management skill deficits in market » Client can manage program risk of second market process if Lump Sum offer is not acceptable to client » Suited to greenfield and brownfield projects where the risk can be investigated and then priced |
| Contractor skills | <ul style="list-style-type: none"> » Design management/design finalisation » Strong stakeholder engagement and collaborative contracting skills, particularly as project financials highly transparent to Client, and innovation value sharing must be managed collaboratively » Cost planning/management » Preparedness for Client to own design (including Contractor IP) » Construction management, including constructability advice and access to D&C subcontractor market » BIM modelling |

| Method | Early Contractor Involvement |
|----------------------------------|---|
| Procuring Agency skills | <ul style="list-style-type: none"> » Initial design management/design procurement » Pre-tender Target Lump Sum development » Collaborative contracting, particularly on innovation value sharing » Contract management, particularly where Lump Sum offer is not acceptable and second market process required |
| Benefits | <ul style="list-style-type: none"> » Final design developed/owned by contractor – commercial alignment between design and constructability particularly if (schematic) design team is novated to contractor » Contractor innovation able to be designed into project » Longer lead time for Contractor to mobilise and understand project » Early collaboration provides opportunities to resolve design and other risks, thereby encouraging effective risk transfer and insights into profit opportunities. » The contractor works with the client to develop the project scope in planning phase, and hence, less effort is spent on interpreting the client’s project scope in the delivery phase » Encourages integration of design and construction teams » Competitive tension is maintained if the client adopts a competitive ECI tender process » Collaborative contracting/innovation sharing |
| Risks and risk allocation | <ul style="list-style-type: none"> » Program risk if lump sum offer is not acceptable to the client » Lack of competitiveness in pricing the delivery phase can potentially lead to increase in costs and difficulty demonstrating value for money » High level of client input required to ensure that the project solution and agreed delivery phase price represent value for money » May over-engineer the design option » A resource intensive process that involves senior resourcing in early stages » May result in an inefficient solution if there are no requirements in place to challenge and contest pricing and programming » Under a non-competitive ECI process, the client has strong incentives to accept the lump sum offer if there isn’t sufficient time to re-tender the works » Client-initiated variations in the delivery phase are costly, thereby giving less flexibility for the client to propose changes in the delivery phase |
| Contracting form | <ul style="list-style-type: none"> » ECI deed (with GC21 for Main Works) |
| Example(s) | <ul style="list-style-type: none"> » Blacktown Hospital, Prison Bed Capacity Program |

| Method | Framework Agreement |
|--------------------------------|---|
| Description | <ul style="list-style-type: none"> » A Contractor Framework Agreement involves the establishment of a panel of capable contractors through a competitive tendering process, based on known scopes of programmed work activities, to assist in delivery of single discipline activities or multidiscipline whole of project deliverables » The Agreement is managed by the owner with contractors on the panel requested to undertake works based on competitively bid rates for work activities |
| Conditions for use | <ul style="list-style-type: none"> » A panel of contractors in a Framework Agreement is likely to be suited to defined programs works or activities associated with capital improvements, maintenance and operations facilities within operational infrastructure. This type of environment often leads to a high potential for change in timing or quantity of works. Under these conditions access to contractors on a panel with pre agreed rates enables early response and adjustments to scope and budget for works, and are likely to suit: <ul style="list-style-type: none"> > Small sized work packages; > Known scopes of work based on units rates; > Regular works such as maintenance and or operational projects; > Works where brief and concept design has been developed; > Emergency works; and > Engagement of specialist resource capabilities > Requires pipeline of work |
| Contractor skills | <ul style="list-style-type: none"> » Design management/design finalisation » Strong stakeholder engagement and collaborative contracting skills – particularly as project financials highly transparent to client, and innovation value sharing must be managed collaboratively » Cost planning/management » Preparedness for client to own design (including contractor IP) » Construction management, including constructability advice and access to D&C subcontractor market » BIM modelling |
| Procuring Agency skills | <ul style="list-style-type: none"> » Scope definition » Initial design management/design procurement » Pre-tender Target Lump Sum development » Collaborative contracting – particularly on innovation value sharing » Contract management – particularly where Lump Sum offer is not acceptable and second market process required |

| Method | Framework Agreement |
|----------------------------------|---|
| Benefits | <ul style="list-style-type: none"> » Final design developed/owned by contractor – commercial alignment between design and constructability particularly if (schematic) design team is novated to contractor » Contractor innovation able to be designed into project » Price certainty and can be priced in different tranches – design management and construction components » Longer lead time for Contractor to mobilise and understand project |
| Risks and risk allocation | <ul style="list-style-type: none"> » Risk allocation is reasonably defined » Limited risk sharing in delivery » Panel Contractor may accepts some performance based risk » Most of the delivery and quantum risk is with Owner |
| Contracting form | <ul style="list-style-type: none"> » Framework Agreement linked with either traditional or collaborative contract |
| Example(s) | <ul style="list-style-type: none"> » Power Supply Upgrade Program Feeders |

| Method | Incentivised Target Cost |
|---------------------------|--|
| Description | <ul style="list-style-type: none"> » The Target Cost includes Lump Sum components and Actual (or Reimbursable) cost components. In deciding whether costs are classified as Lump Sum or Actual, the State gives consideration to optimising risk allocation: <ul style="list-style-type: none"> > Where the private sector is best placed to manage the risk and/or there is more certainty on scope, the cost tends to be classified as a Lump Sum > Where the risk should be shared or the State is better placed to manage the risk, and/or there is scope uncertainty, the cost tends to be classified as Actual cost » Lump Sum includes Management Fee » Actual Cost includes Contingencies » Some costs are not included in Target Cost. The carved-out costs reflect costs which are not known at time of procurement ('known unknowns'). This can include specific risks (e.g. unknown specified utilities), additional contract packages that will need to be incorporated into this contract, and other project-specific examples <ul style="list-style-type: none"> > These costs are determined by the State. They are paid on Actuals basis » Contract incentives include: <ul style="list-style-type: none"> > Cost incentive - gain share/pain share mechanism where contract price differs to the Target Cost > Early completion payments - this is applied if completion dates are paramount to the State (e.g. in order to facilitate another project) > KPI incentives - payment for meeting stretch non-cost benchmarks (e.g. Customer Service) > Liquidated damages and delay indemnity apply. This is to cover State's costs tied to poor performance or delay (including knock-on effects on other packages) » Complete transparency » Extensive collaboration between Contractor and State, and between Contractor of this package and Contractor of other dependent packages |
| Conditions for use | <ul style="list-style-type: none"> » Projects with complex interfaces, many stakeholders, non-standard deliverables » When there is some uncertainty on technical inputs at time of award » Suited to greenfield or brownfield projects where the risk can be investigated and then priced |

| Method | Incentivised Target Cost |
|----------------------------------|---|
| Contractor skills | <ul style="list-style-type: none"> » Design management and finalisation » Strong stakeholder engagement and collaborative contracting skills – particularly as project financials highly transparent to client, » Preparedness for client to own design (including contractor IP) » Construction » BIM modelling e.g. model traffic flow » Customer service and user experience |
| Procuring Agency skills | <ul style="list-style-type: none"> » Scope definition » Technical skills to get to a reference design » Pre-tender Target Cost development » Collaborative contracting management – including ongoing market testing » Extensive contract management to ensure value for money |
| Benefits | <ul style="list-style-type: none"> » Allows for innovation » Extensive, highly interactive RFP period » Provides more funding certainty than Alliance » Ability to deal with complex interfaces |
| Risks and risk allocation | <ul style="list-style-type: none"> » Funding uncertainty remains (compared to D&C) » Relies on strong contract management skills on the State side |
| Contracting form | <ul style="list-style-type: none"> » No standard form available |
| Policy & approvals | <ul style="list-style-type: none"> » Board level, INSW Gateways |
| Example(s) | <ul style="list-style-type: none"> » Central Station Main Works |

| Method | Alliance Agreement |
|---------------------------|---|
| Description | <ul style="list-style-type: none"> » Alliance contracting is delivering major capital assets, where a public sector agency (the Owner) works with private sector parties (Non Owner Participants or NOPs) » All participants are required to work together in good faith, acting with integrity and making best-for-project decisions » Alliance Agreements are premised on joint management of risk and opportunity for project delivery. All participants jointly manage that risk within the terms of an “Alliance Agreement”, and share the outcomes of the project » Usually an all cost reimbursable model with risk reward incentive regime to drive performance outcomes » Can incorporate an ECI phase » JV or pseudo JV of private sector participants » Continuous involvement of all parties » Unanimous agreement of parties for decisions » Potential for waiver of right to bring legal claims by all parties » Non-owner participants should only be paid for costs actually and reasonably incurred. Broad rights to access, inspect and audit records allows for transparency » Target date for completion is supported by a pain-share/gain-share regime linked to time KPI |
| Conditions for use | <ul style="list-style-type: none"> » Owner has sufficient internal resources » Project has risks that cannot be adequately defined or dimensioned in the business case nor during subsequent work prior to tendering » Cost of transferring risks is prohibitive in the prevailing market conditions » Project needs to start as early as possible before the risks can be fully identified » Owner has superior knowledge, skills, preference and capacity to influence or participate in the development and delivery of the project » A collective and transparent approach to assessing and managing risk will produce a better outcome » Ill-defined scope |
| Contractor skills | <ul style="list-style-type: none"> » Willing to comply with a Project Alliance Agreement consistent with the proposed alliance principles, behaviours and Commercial Framework arrangements » With the capability to deliver projects of the nature, size, scale and complexity of the respective projects » With the financial capability to deliver the project |

| Method | Alliance Agreement |
|----------------------------------|---|
| Procuring Agency skills | <ul style="list-style-type: none"> » Sufficient internal resources. As a minimum, the number of internal resources available to procure and deliver an alliance contract can be expected to be equivalent to, if not of higher capability than, those normally made available to procure and deliver a traditional contract » Superior knowledge of the project » Sufficient technical knowledge » Hands-on management » Cost planning and cost management |
| Benefits | <ul style="list-style-type: none"> » Performance enhancement » Reduce disputes » Collective decisions » Flexibility » Early commencement » Innovation » Capitalise on joint knowledge, systems, innovation and risk management, and maximise Client input » Shared risk, aligned goals and minimal variations |
| Risks and risk allocation | <ul style="list-style-type: none"> » Risks are shared » Additional costs as a result of the remuneration framework may inadvertently incentivise the NOPs to exceed the original scope » Limited legal recourse » There is potential for cost and time overruns should the risk cap be exceeded, given that all agreed NOP participant costs will be reimbursed above risk cap » Success relies heavily on a strength of relationships and leadership by all parties » Not suited for smaller size projects due to establishment and governance cost premium » Unknown exactly how much a project will cost from the outset, making it difficult to budget as an additional risk » Greater resources of the client are required to participate in an Alliance (e.g. cost of setting up and developing the Alliance) » Limited cost certainty |
| Contracting form | <ul style="list-style-type: none"> » Alliance Agreement |
| Policy & approvals | <ul style="list-style-type: none"> » Delivering Agency, INSW |
| Example(s) | <ul style="list-style-type: none"> » NovoRail, Level Crossing Removals, Kingsgrove to Revesby Quadruplication (K2RQ), Glenfield Junction Alliance, Richmond Line Alliance |

| Method | Collaborative Client Contract |
|--------------------|--|
| Description | <ul style="list-style-type: none"> » This method refers to extensive collaboration during the procurement phase of the project (rather than the contract form) » The procurement period is highly interactive » The market responds with critical risks that cannot be dealt with effectively under the proposed contract form » The private sector and the State then work together to: <ul style="list-style-type: none"> > Define the scope of the carved out risks; and > Agree the contractual mechanism to address such risks » For instance, the contract form could be a Lump Sum D&C but it is noted that contamination and utilities risks could be high and uncertain. Under the Collaborative Client Contract model, the market and the State would identify such risks and propose a solution e.g. a lump sum D&C with a Target Cost just for the risk element(s) |
| Example(s) | » WestConnex Stage 3b |

| Method | Delivery Partner |
|--------------------------------|---|
| Description | <ul style="list-style-type: none"> » It combines elements of Managing Contractor, alliancing and EPCM (Engineering, Procurement, Construction, Management) models » The Delivery Partner is precluded from performing design and construction services, which must be competitively tendered (unless the State specifically agrees otherwise) » The State retains control of significant input over the appointment of suppliers and subcontractors, and engages them directly (or the Delivery Partner, acting as the agent of the Client engages them) » Usually a fixed fee for management function » All supply chain engagement and direct cost is with Client » May include a minor risk reward incentive regime to drive performance outcomes » Used for a portfolio of projects, sub-projects or a precinct-wide program » Reimbursement of the delivery partner's actual costs (salaries and overheads) on an open book basis » Gain-share/Pain-share payment, with the pain share of delivery partner capped at loss of fee » 'Best endeavours' obligation to achieve completion on time, supported by gain-share/pain-share payment linked to time KPI |
| Conditions for use | <ul style="list-style-type: none"> » Large sized reasonably defined projects » Delivery Partner (as Client's agent) |
| Contractor skills | <ul style="list-style-type: none"> » Provide specific skills and resource partner as an extension to the Client organisation, typically for management, engineering, procurement and construction and/or maintenance functions |
| Procuring Agency skills | <ul style="list-style-type: none"> » Expert level understanding of procurement and contract management of subcontractors |
| Benefits | <ul style="list-style-type: none"> » Competitively tendered fixed fee for management team (indirects) » Efficient and potentially cost effective contracting method for large project works with multiple interfaces and challenging time constraints » Ability to manage large portions of works where time constraints apply and scope is not sufficiently well defined to warrant a D&C » Access to the capabilities of the private sector without having to rely on a sole provider, thus ensuring value for money and timely project delivery » Procurement and construction can commence while design is still being procured, which enhances project flexibility and efficient time management » Reallocation of resources throughout the entire project to areas where they are most required, further enhancing project flexibility and efficient time management |

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|----------------------------------|---|
| Risks and risk allocation | <ul style="list-style-type: none"> » Increased Client risk profile compared to Alliance with larger scope for variations » Not suited if unknown pipeline or definite scope of work » No or minimal self-performance » All Direct Cost (supply chain) risk remains with Client » Competitively tendered fixed fee for Delivery Partner services and associated risks may not drive best outcomes » No cost or time outcome certainty at the start of project commitment » Critical to appoint a delivery partner with suitable capability and resources. Client may need to pay a high management fee to attract a capable delivery partner, thereby driving up delivery costs » Client retains completion risk |
| Contracting form | » RMS |
| Example(s) | » Pacific Highway: Woolgoolga Ballina (RMS), London Olympics |

Public Private Partnership Category

While there are many variants of PPPs, this appendix describes these at the category level. The CLG recognises that there are effective and well-documented PPP guidelines which apply in various jurisdictions and this document is not intended to replace those guidelines.

| Method | Public Private Partnership |
|---------------------------|--|
| Description | <ul style="list-style-type: none"> » A long-term contract between the public and private sectors where the private sector delivers infrastructure and related services on behalf, or in support, of Government's broader service responsibilities » PPP typically make the private sector parties who build infrastructure responsible for its condition and performance on a whole-of-life basis » Provision of a service involving the creation of an asset typically involving private sector design, construction, financing, maintenance and delivery of ancillary services for a specific period » Private sector receiving payment from government or user once operation of the infrastructure has commenced and contingent on the private sector's performance in supplying the services » Variants can include: Build, Own, Operate and Transfer (BOOT), Design, Build, Finance and Operate (DBFO), Design, Build, Finance and Maintain (DBFM), Design, Build, Operate and Maintain (DBOM), Design, Construct and Maintain (DCM), Market-Led Proposals directly related to PPP contracts or that progress as PPPs » Option for operations risk transfer to the private sector or retained by the State |
| Conditions for use | <ul style="list-style-type: none"> » Projects with estimated capital value exceeding \$100 million » Long term infrastructure projects which focus on an integrated whole-of-life solution for holistic long term outcomes » Outputs can be clearly defined and measured » Scope for innovation » Strong market interest » Whole-of-life asset management is achievable and cost-effective » Opportunities for appropriate risk transfer » Opportunities for bundling contracts » Significant service component » Complementary commercial development |
| Consortium skills | <ul style="list-style-type: none"> » Design management/design development & finalisation » Construction management » Previous experience in PPPs » Whole-of-life management » Service delivery |

| Method | Public Private Partnership |
|----------------------------------|--|
| Procuring Agency skills | <ul style="list-style-type: none"> » Scope definition » Variation/budget management » Contract management » Project team that has the requisite skills and the appointment of specialist advisors, such as commercial/financial, legal and technical advisors, where required |
| Benefits | <ul style="list-style-type: none"> » Better integration of design, construction and operational requirements » Bringing forward infrastructure expenditure, including through delivering projects as part of a single package instead of staging capital development over the long term » Value for money achieved through whole-of-life-costing and appropriate risk transfer over the concession term » Innovation » Costs to government are reduced, through third party utilisation and through more efficient design to meet performance specifications » Rigour of debt and equity in due diligence increases certainty and allows the full input of private sector innovation » Private sector incentivised via equity to deliver sustained long term outcomes » One point of contact/responsibility for complex interfaces which minimises procurement and delivery complexity and 'gap risk' for Government » Government doesn't pay until the project is complete, fully transferring delivery risk to the private sector » Significant risk transfer for design, construction time and lifecycle and maintenance, including interface risks between delivery phase and operations phase |
| Risks and risk allocation | <ul style="list-style-type: none"> » Default of SPV in market downturn (i.e. due to high gearing ratio) |
| Contracting form | <ul style="list-style-type: none"> » Standard project deed |
| Policy & approvals | <ul style="list-style-type: none"> » Delivery Agency, INSW, NSW PPP Guidelines |
| Example(s) | <ul style="list-style-type: none"> » Sydney Metro North West, New Grafton Correctional Centre, Sydney Light Rail |

