Guidance for Public Private Partnerships (PPPs) in New Zealand

Prepared by the

National Infrastructure Unit

of the Treasury

October 2009
Version 1.1

THE TREASURY
Kaitohutohu Kaupapa Rawa

New Zealand Government

ISBN: 978-0-478-33082-3 (Online)

This document will also be made available on the National Infrastructure Unit's website:
http://www.infrastructure.govt.nz/publications/pppguidance
and on the Ministry of Economic Development's website: www.procurement.govt.nz

Persistent URL: http://purl.oclc.org/nzt/g-pnz

Contents

Guidance for Public Private Partnerships (PPPs) in New Zealand

1. Introduction

Public Private Partnerships (PPPs) can refer to many different kinds of relationships between the government and the private sector, but these guidelines use the term to refer to long-term contracts for the delivery of a service, where the provision of the service requires the construction of a facility or asset, or the enhancement of an existing facility. The private sector partner finances and builds the facility, operates it to provide the service and usually transfers control of it to the public sector at the end of the contract. These contracts are sometimes also referred to as concession agreements.

The long-term nature of PPP contracts, the fact that these contracts are usually used for large and often complex projects which individual government agencies will engage in only infrequently, the importance of financing arrangements and the typically large bidding and contracting costs make it desirable to develop specialist expertise to support departments and agencies in the development of PPPs. In New Zealand, this role is played by the National Infrastructure Unit of the Treasury.

It is also desirable to promote a high degree of standardisation, discipline and transparency in the letting of PPP contracts through guidance material for government agencies that might be involved in letting PPPs.

The purpose of this guide is to outline for government agencies, potential bidders and the public the general direction and principles that will be adopted, the processes that are to be followed and the rationale for them. It also provides a framework for assessing whether a PPP is to be preferred over other forms of procurement in any given situation. More detailed guidance will be developed as we gain experience with PPPs, or as particular issues present themselves.

The guide draws on existing publications, including the Auditor-General's 2006 report on the key issues arising from different kinds of partnering arrangements, in particular PPPs[1] and is based on guidance endorsed by the Australian Procurement and Construction Council (comprising departments responsible for procurement, construction and asset management policy for the Australian, State and Territory governments and the New Zealand government[2]) and being applied by all Australian, State and Territory Government agencies.

---

1 "Achieving public sector outcomes with private sector partners**",** Office of the Auditor-General, February 2006. http://www.oag.govt.nz/2006/public-private/

2 New Zealand is represented by the Ministry of Economic Development.

While the Australian guidance is well-developed and draws on many years of practical experience, there are a number of areas where we believe greater specificity can be provided or where New Zealand's circumstances are different. This guide therefore sets out:

- where the Australian guidance can be followed
- where a different approach should be taken in New Zealand, and
- some additional considerations that should be taken into account when deciding how to apply the guidelines in certain situations.

There are a number of areas where further work is required, including an examination of alternative approaches to documentation and the bidding process in light of Government Procurement Reform and Job Summit actions to make it easier for business to bid for government contracts (the Australian approach to PPPs is characterised by relatively high bidding costs and what appears to be highly complex contractual documentation, compared with what can be observed in South America, Canada and some parts of the United States). There are also questions around the desirability of taking a share in refinancing gains (as this reduces the extent of risk transfer) and what assurances regarding the availability of finance should be required.

These and other issues are currently being examined and will be incorporated in this guidance in future updates. The Government through the National Infrastructure Unit of the Treasury welcomes an ongoing dialogue about how this guidance can be improved.

Finally, readers should note that these guidelines should not be substituted for common sense, judgement and experience. Expert advice should therefore be sought wherever appropriate.

2. Support and Quality Assurance

The Role of the National Infrastructure Unit

For the reasons outlined in the introduction, it is common practice in most countries that use PPPs to establish a specialist PPP unit. Such units are usually located in, or are associated with, the national Treasury or Ministry of Finance. The unit is:

> *the focal point for economic and financial assessment and advice on all PPPs and will assist government agencies more generally. It will ensure application of these Guidelines. The relevant PPP authority will also promote best-practice PPPs by absorbing and disseminating the lessons of experience and consulting with other governments on their experiences and practices.*[3]

In New Zealand this role is played by the National Infrastructure Unit (NIU) of the Treasury. Cabinet has agreed that:

- the NIU should be involved in the economic and financial assessment and advice on all PPPs
- departments and agencies should be required to consult the NIU early in the development of a PPP proposal, and
- departments and agencies should be required to give the NIU the opportunity to make an experienced officer available to the project steering and working groups.

The NIU will not itself contract for projects; it does not have a budget to do so. PPP contracts will be with line agencies.

Gateway Review Process

To ensure good quality assurance, Cabinet has approved the use of a "Gateway Review Process" for quality assurance of large or high-risk state sector projects. In essence, the process requires six separate reviews by independent experts. However, the results of the reviews are not publicly available – they are provided confidentially to the project's senior responsible official.

Guidance for this process and whether a project needs to be subjected to it is provided by the State Services Commission and is not detailed in this document.[4]

The numbers in the first column in Figure 1 represent the timing of the first four Gateway reviews in relation to the key stages in the PPP project life cycle.

Other Guidance

A list of government procurement guidance can be found at www.procurement.govt.nz.

---

3 Section 8.6 of Infrastructure Australia's *Practitioner's Guide.*

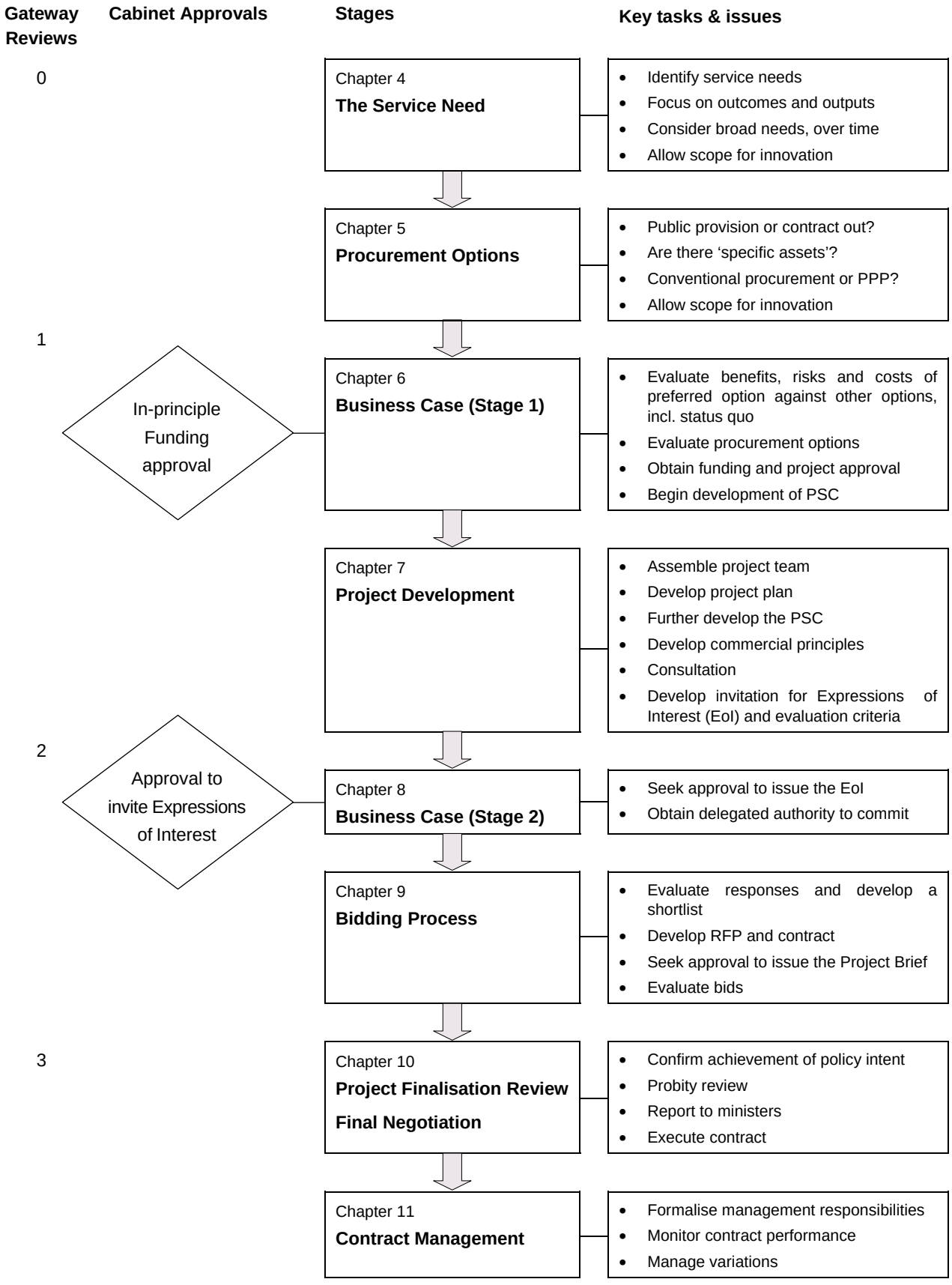
4 See http://www.ssc.govt.nz/display/document.asp?docid=6782

3. The Process

The following figure[5] sets out the key stages in developing a major construction or service delivery project. The two-stage Cabinet approval process is a Cabinet requirement and applies to large capital projects of all departments and Crown agents (as defined in the Crown Entities Act 2004). The remaining chapters of this guide contain a detailed discussion of the individual stages as they apply to PPPs:

5 Adapted from the *Infrastructure Australia* "Volume 2: Practitioners' Guide" p.5. See http://www.infrastructureaustralia.gov.au/public_private_partnership_policy_guidelines.aspx

Figure 1: Major Stages in Developing a PPP Project



4. The Service Need

- Identify service needs
- Focus on outcomes and outputs
- Consider broad needs, over time
- Allow scope for innovation

The first and most critical step in the lifecycle of any procurement project is the articulation of the service need in functional terms. The better this is done, the fewer problems will be experienced later in the process. The most common mistake is to jump to designs or solutions before the service need has been properly identified and clearly specified in output terms.

The service need must be defined by the client, users or stakeholders. It must be expressed in terms of needs, functions and operational performance requirements. It should reflect the desired outputs and outcomes and wherever possible avoid describing requirements in design or descriptive characteristics.

Example:

Rather than defining the distance of a document storage facility from the place of document use, the service need should define the time within which the document needs to be available for use.

Example:

Rather than defining the pavement characteristics of a road, the service need should specify the tolerated pavement deflection when a load is applied to it.

The document that sets out the service need must be written in the language of the customer and the user, and it is critical that it is comprehensive, readable and unambiguous. As well as setting out the applications or missions for which the service is intended, the document should set out the operational constraints that limit the design, the external systems that the service will interface with and the operational and support environment within which the service will be provided. In noting constraints, the public sector should be aware that adding constraints is likely to reduce the bidders' ability to both innovate and optimise their service delivery solution. Only those constraints that are absolutely necessary should be included.

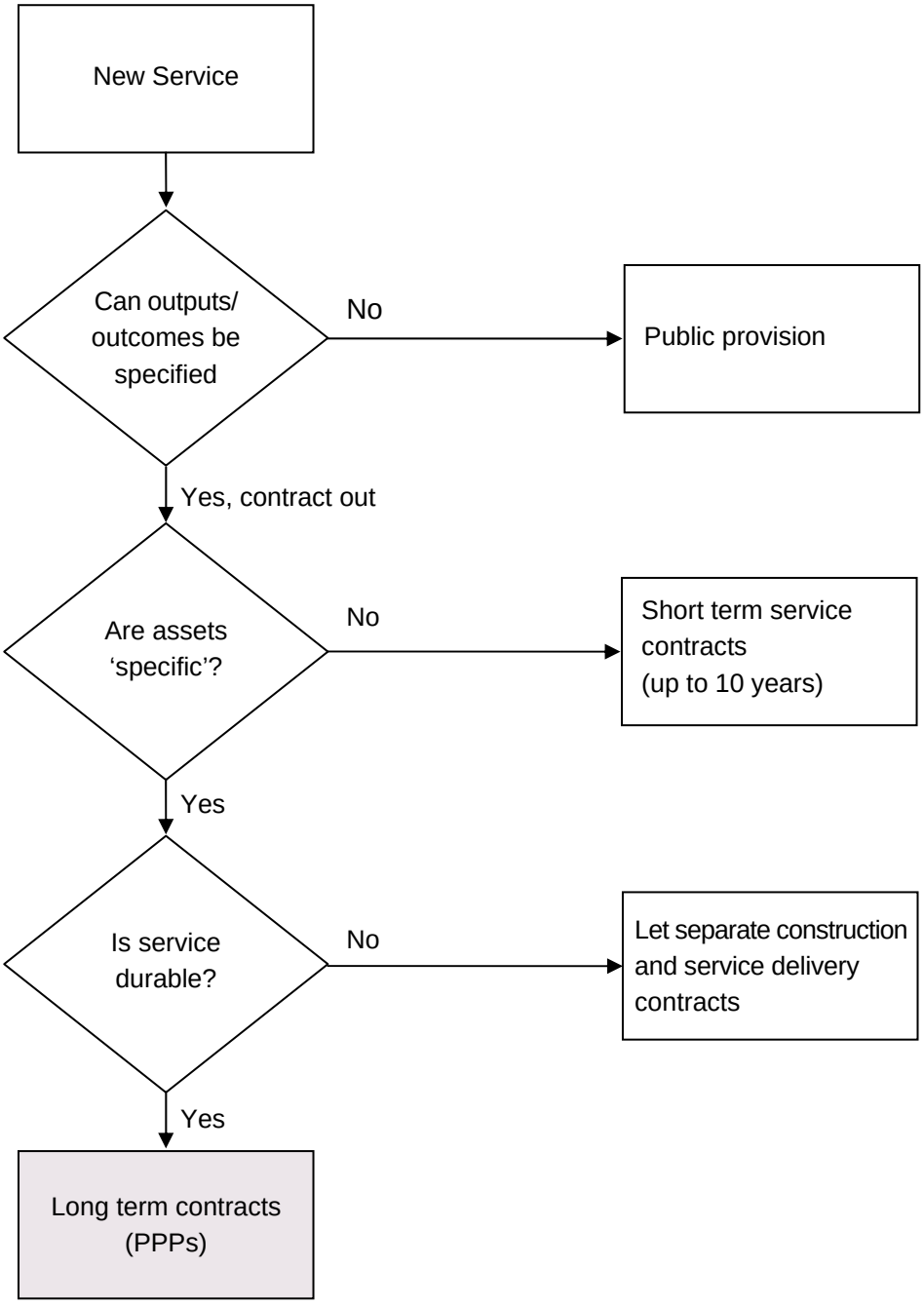
5. Procurement Options

- Public provision or contract out?
- Are there ‘specific’ assets?
- Conventional procurement or PPP?
- Allow scope for innovation

Having identified the characteristics of the service need, the next question is how it should be procured.

The decision tree in figure 2 places the question of whether a PPP is appropriate into a wider procurement decision framework:

Figure 2: Procurement Decision Framework



As a general rule, if the service can be **well-specified**, then a market-based contractual relationship is preferable over a "master-servant" type of relationship. This is because the clear performance specification that is the basis of a contract can be linked to financial incentives which deliver stronger performance, resulting in greater cost efficiency and a better quality product. 'Master-servant' relationships are preferable where the service provider is expected to 'guess' what the client wants, ie, where the quantity or nature of the service is difficult to specify in advance.

If a service can be well-specified, then the next step is to consider whether the service can be purchased from owners of existing assets or whether the market needs to make a specific-purpose investment (also referred to as '**specific assets**'). Specific-purpose investments are those which can only be used for a particular client. For example, if someone builds a corrections facility for the government, if the contract is terminated then the contractor cannot use the facility for other clients. A corrections facility is therefore a specific-purpose investment.[6]

Where there are no large specific-purpose investments, it is preferable for the government agency to buy the service from the market without the government making a capital investment. For example, office accommodation in a big city is typically best rented.

If the required investments have a significant specific-purpose component, then there are two choices:

- The government lets a contract for the construction of the facility and lets a separate contract for operating the facility. This is known as 'conventional procurement'. In this situation the government owns the facility and the operating or service contract can be re-tendered periodically (eg, every 5 years).
- The government lets a long term contract for both construction and service delivery. This is known as a concession agreement, a form of public private partnership (PPP). The service can be either a full service or it can be just the maintenance of a facility, or something in between. For example, if the facility is a school, then the contractor could be responsible for maintenance and the provision of computing services, with a separate government agency being responsible for providing teachers and the educational service.

However, innovation and whole-of-life cost minimisation are more likely achieved if the PPP is a full-service contract. In addition, full service contracts are less likely to leave substantial interface risks with the public sector.

The choice between conventional procurement and a PPP largely depends on whether the service is **durable**, ie, how likely it is that the service requirement will change over time in unpredictable ways, requiring costly contract variations. This choice is discussed in some detail in the next section.

---

6 In the United States, state governments are typically not concerned about sending inmates into corrections facilities out-of-state, so a corrections facility owner who loses a state contract is able to sell custodial services to other state governments. Those facilities are therefore not specific assets in the sense used here.

Choosing between a PPP and Conventional Procurement

Empirical research on PPPs generally concludes that PPPs appear to have the potential to offer better value for money[7] over conventional procurement methods (these are described in appendix 1). The following discussion sets out a framework for evaluating whether a PPP offers value for money relative to a design and construct contract (D&C), though any type of contract could be used as a comparator.

Whole of Life Cost Minimisation

Operating and maintenance (O&M) costs are partially driven by construction standards. There is therefore a three-way trade-off between achieving construction cost savings, minimising operating and maintenance costs and maximising user benefits. A contractor who effectively owns a risk in the asset, at least for the duration of the contract, and is paid for the delivery of services only, has the right incentives to optimise construction costs in order to achieve whole-of-life cost minimisation, and the incentive to strike the right balance between cost minimisation and user benefit maximisation.

When assessing the extent of potential whole-of-life economies, account needs to be taken of the extent to which the client imposes minimum construction standards and other input specifications, or the extent to which the contract will reduce the contractor's exposure to risk through profit/revenue sharing and refinancing gains sharing arrangements, as these factors reduce the scope for achieving whole-of-life economies.

Financing Cost Optimisation

Because no progress payments are made by the public sector under a PPP, the contractor or consortium bears a financing cost during the construction period and therefore has an incentive to optimise the speed of construction. This could be a useful source of cost savings.

This benefit could also be obtained by way of a 'fixed price / no progress payment' contract (which is a variant of D&C).

The more general issue of the cost of private finance compared with government finance is discussed in chapter 7 (see 'Finance'). It concludes that we have to assume that the cost is the same.

Greater Cost Certainty

A PPP is less prone to "cost escalation". This is due to the fixed price nature of the contract and the greater care that the preparation of a "Public Sector Comparator" requires in estimating the full costs. "Cost escalation" in conventional procurement is likely to be due to a combination of initial cost underestimation and scope increases both before and after the contract is let. In addition, whole-of-life maintenance and operating costs are also made more transparent. These are often under-accounted for in conventional procurement.

---

7 By maximising value for money we mean maximising the benefits relative to the costs. This can be achieved either by a lower cost, or by increasing the benefits provided by the project, or by a combination.

PPPs are therefore likely to provide more cost certainty. Greater cost certainty is likely to result in better decision-making, as the decision-making will be based on more robust cost estimates.

Maximisation of User Benefits

Where the contractor is paid directly by the users, such as in the case of a toll road, the contractor has an incentive to design the facility so that benefits to users are maximised, as that will maximise user demand and therefore revenue. The incentive to do so will be lower, however, where the facility has monopoly characteristics, such as is often the case with toll roads.

If there is no user charge, this incentive can in principle be replicated through a shadow charge[8] or by having tender selection criteria which are known to the market and which clearly reward the winning bidder for design features that maximise usage[9]. A similar effect can be achieved through the use of a customer-focused, performance based payment mechanism.[10] More generally, the incentive to maximise user benefits depends on whether the payment mechanism rewards the provision of more user benefits and whether the service specifications were written in functional or output terms that enable the contractor to consider the level of user benefits as a variable.

High Bidding and Contracting Costs

Australian experience suggests that bidding and contracting costs for a $2 billion project could be as high as $20 million per bidder. If there are three bidders, then including the government's cost, this would represent 2.5 – 4% of the total cost of the project.

Some of these costs are driven by the historic Australian requirement for bidders to have committed finance (although this is becoming less common since the global financial crisis). This brings financiers into the process who demand more rigorous investigations into the likely costs and revenues than construction companies by themselves would demand. An alternative model involving a large bond rather than committed finance may possibly avoid some of these costs. In a number of jurisdictions, funding competitions are held after selection of the preferred bidder, which reduces "at risk" bid costs but may extend the period of time leading to financial close. However, there may be other reasons for the high bidding costs, such as the complexity of the contracts employed in Australia and the lack of standardisation in that market.

Further clarification is required whether the high bidding costs are inherent to a PPP or whether they are avoidable by adopting better contracting and tendering processes. Containing bidding costs is one of the objectives that should be pursued in designing a bidding process. See chapter 9.

---

8 A shadow charge is a user charge which is not paid by the user, but by the Government on behalf of the user.

9 In the case of toll roads, it appears that governments have found it difficult to design shadow toll regimes that mimic a real toll – all cases of shadow tolls that have come to the attention of the writer have features, such as banding, that substantially reduce the demand risk transfer, effectively negating the incentive effects that a shadow toll might otherwise have.

10 Useful guidance on the development of payment mechanisms may be found in Chapter 7 of HM Treasury's publication, *Standardisation of PFI Contracts* - http://www.hm-treasury.gov.uk/d/pfi_sopc4pu101_210307.pdf

High Cost of Contract Variations

The longer the contract term, the greater the likelihood that some variation to the contract will need to be negotiated. Change is almost inevitably more expensive when it takes place by way of a variation to an existing contract, than if it is done by way of competitive tendering. This is particularly the case if the nature of the change was not envisaged at the time the contract was drawn up.[11]

Under conventional procurement, service contracts can be let for shorter periods of time, eg, 5 years. Any change in requirements by the client can be incorporated into the contract at the time of the next re-tendering and priced competitively.

Difficult Contract Enforcement

It is almost inevitable that some performance dimensions are difficult to specify in a contract, or it is difficult to put an effective penalty/reward regime in place to incentivise it. In the case of shorter contracts, the periodic re-tendering of the contract incentivises the contractor to perform well even along dimensions that are not well specified. And if the contractor doesn't perform well, the contract can be transferred to someone else at the time of the re-tendering. This problem is clearly a function of the length of the contract term, ie, the longer the contract term the more severe this problem is.[12]

Overall Assessment of PPPs vs Conventional Procurement

The table in figure 3 summarises the above points. It is in effect a cost-benefit analysis of PPPs relative to conventional procurement. In practice it will be very difficult or impossible to assign dollar values to all the elements; however, in weighing up the pros and cons it is useful to think in dollar terms, as that ensures that appropriate relative weightings are given to each of the elements:

---

11 http://www.hm-treasury.gov.uk/d/pfi_change_protocol_principles.pdf sets out some principles that are helpful in developing appropriate contractual provisions for contract variations that can be anticipated.

12 A PPP that failed because of the problem of difficult to specify performance dimensions is the Latrobe Regional Hospital, – a PPP entered into by the Victorian state government and a private sector consortium, Australian Hospital Care Limited (AHCL). The Victorian Auditor-General noted in a report in June 2002 that: *Although the contractual arrangements for the privatisation of the Latrobe Regional Hospital were successful in transferring financial risk to the private sector, the social responsibilities of the State meant that any threat to public health and safety or hospital service provision could not be allowed to occur. In this case, the State stepped in when it appeared that a risk to the provision of ongoing hospital services was increasing. The final outcome was that AHCL was able to avoid the full financial risk obligations embodied under the contractual arrangements ("Report on Public Sector Agencies", June 2002).*

Figure 3: Pros and Cons of PPPs

	Value for Money Criteria	Likely benefit of using PPP over alternative, in dollars
Pros	Whole of life cost savings – ie, the combination of construction and ongoing operating and maintenance costs	
	Financing cost savings (during construction)	
	Greater user benefits	
	Likely to access additional revenue sources – creative ideas for extracting more value from the infrastructure, eg, property development or advertising, etc.	
	Greater cost certainty and therefore better decision–making by the public sector	
	Greater community benefits – ie, works undertaken for the benefit of the surrounding community	
Cons	Tendering and contracting costs	
	Cost of contract variations – ie, the additional cost of changing contractual provisions above and beyond what it would cost if change was negotiated competitively	
	Contract enforcement – difficulties with contract enforcement and specification of performance dimensions	
Net value-for-money of PPPs cf conventional procurement:		

Other Reasons for Embarking on a PPP

PPP projects are more likely completed on time and within budget, but these are not sufficient reasons by themselves to undertake a PPP. On time and within budget completion are not included in the above table because if desired, these outcomes could also be achieved through appropriate provisions in conventional procurement contracts.

PPPs are said to offer the advantage that risk is transferred to the private sector. Risk transfer is not an advantage in itself, as it can be expected to be offset by a risk premium in the price for the project. The advantage of risk transfer is that it provides the incentive for obtaining the benefits that are set out in the table above.

PPPs are said to offer finance for projects which would otherwise be unaffordable (off-balance sheet financing): PPPs that are financed by service payments from government create a liability to make regular payments over the life of the project. These are, for accounting purposes, treated the same way as the interest that is payable on government debt. They therefore give rise to a similar liability on the Crown's balance sheet as if the project was financed with Crown debt. The provision of private sector finance is therefore only an advantage in so far as it strengthens incentives for obtaining the benefits that are set out in the table above.

6. Business Case (Stage 1)

- Evaluate benefits, risks and costs of preferred option against other options, incl. status quo
- Evaluate procurement options
- Obtain in-principle funding and project approval
- Begin development of PSC

The main functions of the stage 1 business case are to:

- establish the service need
- determine the scope of the preferred option
- analyse the costs and benefits of that option and demonstrate that it has a net benefit, both against other options and against a do-nothing or do-minimum option
- confirm the contribution of the project to government policy objectives
- examine the financial impacts and risks of the project to government
- examine funding sources
- analyse procurement options, and
- elicit a decision from the government whether the project should proceed or not and obtain a budget allocation subject to a final approval following presentation of the stage 2 business case (see below).

The rest of this guide proceeds on the assumption that the analysis of the advantages and disadvantages of different procurement methods (see previous section), when applied to a particular project, favoured procurement by way of a PPP.

The following are some of the issues that need to be considered:

Reputational Risk

Ideally this government decision should be made within the Budget context. It represents a policy commitment to the project.

It can generally be expected that PPP consortiums will start forming as soon as the policy decision is announced, if not already before. They are likely to commence incurring expenditure from this point onwards.

While obviously the government is able to withdraw from the project anytime up to the signing of the contract, withdrawal for other than transparent 'value for money' reasons will impact on New Zealand's and the government's reputation as a reliable business partner.

The reputational risk increases significantly if any decision to discontinue the PPP process is made after the invitation for Expressions of Interest.

Withdrawal for other than value for money reasons could impact on the likely number of bidders in any subsequent attempt to launch a PPP and, therefore, the cost of the project. For this reason, it is important that the business case has canvassed all issues that are relevant to a decision, including public acceptability of the proposal, so that the risk of any subsequent reversal is minimised.

Financial Impact, Accounting Treatment and Appropriation

To the extent that the PPP contract provides for the government to make service payments over the life of the contract (as opposed to users paying directly, as in the case of toll roads), the PPP gives rise to a liability. The liability is equivalent to debt and is likely to be counted as such. The size of the liability is the discounted sum of the service payments and is in practice likely to be equal to the construction cost plus the net present value of the operating and maintenance costs over the life of the contract.

The actual parliamentary appropriation, however, is not required until the contract is signed.

The Treasury should be consulted on the accounting treatment for any specific proposal.

Public Sector Comparator (PSC)

The PSC is a measure of what the project would cost if delivered through conventional procurement.

The PSC is made up of:

- the construction and operating costs of a project, plus
- provision for competitive neutrality adjustments to remove any advantages or disadvantages that accrue to a public sector procurer by virtue of its public ownership, plus
- provision for any additional costs and risks that would be transferred to the private sector partner under a PPP. These risks need to be added as a cost to the PSC because the public sector party would bear the cost of any risks that occur under conventional procurement.

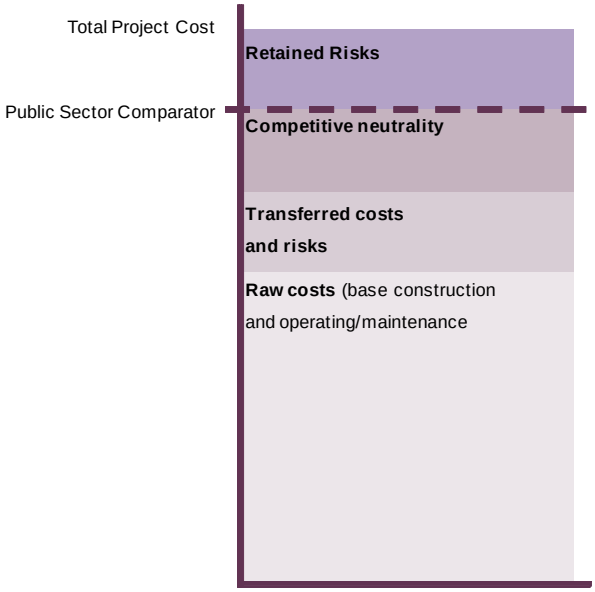
The discount rate that is used to bring these costs to a common basis is critical. Small changes in the discount rate can have a significant impact on the total value of the PSC. When comparing the bids in the competitive tender with the PSC, it is important to ensure that the same discount rate is used for both[13]. If the bidders' cost of capital is known, then that is probably a better discount rate for this purpose than the general government discount rate set out in Treasury guidance[14].

---

13 The *Infrastructure Australia* "Public Sector comparator Guide" (see http://www.infrastructureaustralia.gov.au/public_private_partnership_policy_guidelines.aspx) advises using different discount rates, in effect to correct for deficiencies in the PSC. We consider that it is better to fix deficiencies in the PSC directly.

14 See http://www.treasury.govt.nz/publications/guidance/costbenefitanalysis/

The concept of the PSC is illustrated in the diagram below. The dashed line represents the value of the PSC. It excludes the value of retained risks and costs because these are not passed to the private sector and would therefore not be priced in a tender:



The PSC is a valuable tool for ensuring that:

- all project risks have been identified and costed
- project go/no-go decisions are made on the best possible information, and
- bids are evaluated against a common benchmark.

While the PSC is often used in other countries at the tendering stage to evaluate the value for money of PPP bids, its value for this purpose is limited by the fact that inevitably, assumptions have to be made that have significant margins of error around them, such as the value of some of the project risks.

There is some partial evidence that PSCs tend to have a "pessimism" bias. The PSC's value for measuring a PPP's value-for-money should therefore not be overstated. The PPP's value-for-money is judged principally at the business case stage, and whether the best bid is acceptable will ultimately depend on whether the bidding process was judged to be sufficiently competitive.

Subject to this caveat and the caveat about the discount rate, *Infrastructure Australia's* "Volume 4: Public Sector Comparator Guidance"[15] is a useful guide for putting together the PSC.

PSCs are not typically disclosed in other jurisdictions but this is being explored further.

15 See http://www.infrastructureaustralia.gov.au/public_private_partnership_policy_guidelines.aspx

7. Project Development

- Assemble project team – steering committee, project director, probity auditor, procurement team
- Develop project plan
- Further develop the PSC
- Develop commercial principles
- Develop Expression of Interest (EoI) invitation
- Consultation

Once the business case has been presented to Cabinet and a decision has been made to proceed, a procurement project team will need to be put together to develop the commercial principles, write the contract, undertake necessary consultations and conduct the tendering process.

Section 3 of the *Infrastructure Australia* "Volume 2: Practitioners' Guide"[16] describes these steps in detail. They are not duplicated in this document. However, we make the following additional comments:

Project Management Structure

Section 8 of the *Infrastructure Australia* "Volume 2: Practitioners' Guide" sets out the typical project management structure for PPPs. In New Zealand, the "relevant PPP Authority" is the National Infrastructure Unit of the Treasury.

Engagement of Advisors

A useful guide to the engagement of legal, technical, financial and project management advisors has been developed by the UK Treasury. It can be found at http://www.hm-treasury.gov.uk/d/PPP_TTF_Technote3.pdf.

Commercial Principles

Risk Allocation

1. Reference to legal advisers playing a key role in developing the risk allocation matrix: The risk allocation matrix must be developed by the financial and commercial members of the team, but legal advisers have an important role to ensure that the contract reflects the intent of the risk allocation matrix, that all risks are being considered and that there are no unintended effects.

16 See http://www.infrastructureaustralia.gov.au/public_private_partnership_policy_guidelines.aspx

2. The basic principle of risk allocation is that both the likelihood of a risk materialising and the management of the consequences should be allocated to the party that is best able to manage them. While this principle is generally accepted in theory, it is not always well understood. The following two examples illustrate its application:

> Example:
>
> The ground conditions in a tunnelling project represent a considerable risk for the contractor because they cannot be determined fully before tunnelling operations begin. How such a risk is managed when it is encountered can have a significant impact on the costs of the project. The contractor is obviously in the best position to manage such risks and should therefore bear them.
>
> Example:
>
> The risk that the level of demand for a facility is not forthcoming or declines is the major risk in PPPs. In the case of a prison, the demand for the prison is very much influenced by legislation and therefore by the government's sentencing policy, by the sentencing policy of the courts, by the approach taken by parole boards and by the Department of Corrections' prisoner management policies. Transferring demand risk to the contractor would therefore be an inefficient allocation of risk. Instead, the payment mechanism should be based on some combination of service performance, availability and occupancy rates.

3. It is frequently assumed that the risk of obtaining resource management consents should be retained by the Crown, especially for large projects, on the grounds that this risk is often influenced by political factors that are better managed by the Crown. However, in the UK the preferred bidder generally takes responsibility for obtaining these consents prior to financial close. The appropriate allocation of this risk should be tested in each instance, in accordance with the basic principle of risk allocation referred to above.

Maximising Scope for Innovation

The Project Brief is normally accompanied by a document called the Principal's Requirements. This document sets out in some detail the characteristics of the service that is required.

There is a temptation for the Principal's Requirements to spell out minimum construction standards. This should be avoided as far as possible in order to maximise the contractor's scope to innovate and find cost-effective solutions. See comments in chapter 4 above. Concerns about the future reliability of the service should be addressed through appropriate payment mechanism incentives. See section on payment mechanisms below.

Bidders sometimes offer minimum construction standards. There is a temptation to write these into the contract in order to be able to hold the bidder to them, especially where the bidder was preferred over others because of the higher construction standard. Again, this should generally be resisted in favour of holding the bidder to a particular service standard. An alternative is to write the bidder proposals into the contract but with a lower level of precedence than the output specification. The contractor can then be given flexibility to change its proposals but only to the extent that quality is not impaired and the output specification is still met.

Ensuring that Contractor Has Sufficient Capital at Risk

A concern is often expressed that governments will be left holding the PPP project if the contractor fails or goes bankrupt. In other words, that unanticipated profits go to the private sector but that unanticipated losses are returned to the government.

This can be avoided by ensuring that the contractor or the special purpose vehicle (SPV) is sufficiently capitalised. Complementary devices that should be considered to ensure this include:

- a sizeable performance bond to cover the period between acceptance of a bid and significant capital expenditure by the contractor on the project
- a sizeable performance bond or warranty towards the end of the contract.

Bonds

It is normal practice for bonds to be provided by way of a letter of credit from a bank. In so doing, careful consideration needs to be given to the requirement that the bond is easily enforced.

Profit/Revenue Sharing

Profit or revenue sharing is common for PPPs in other countries where the contractor takes the demand risk, such as for example toll roads. Typically, the contracts provide that if revenue or profit rises above a predefined level in any year, then the excess revenue or profit is shared between the government and the contractor. In shadow-tolled[17] projects, a similar result is obtained by setting the shadow toll in bands, whereby the toll reduces for higher traffic bands.

Because traffic levels are difficult to forecast, a contractor that has taken demand risk is exposed to a significant risk of making large losses or large profits. Since profit/revenue sharing without symmetrical loss sharing reduces the overall expected profitability of a project, the contractor will bid a higher price. There is therefore no net financial advantage for the government. Instead, profit sharing reduces the contractor's incentives to incur expenditure to maximise traffic flows. It detracts, therefore, from the advantages that PPPs have over conventional forms of procurement.

Profit/revenue sharing, however, reduces the political risk for government that arises when a contractor is lucky and makes very large profits. The political risk arises because the public tends to overlook the considerable risk the contractor took[18].

In each instance the need for profit sharing should be tested with the government.

---

17 A shadow toll exists where a toll is payable for each vehicle using a road, but the government pays the toll instead of the motorist.

18 For a discussion of the economics of optimising the profit or revenue sharing threshold, see Engel, E., R. Fischer & A. Galetovic, *The Basic Public Finance of Public-Private Partnerships,* NBER Working Paper 13284, http://www.nber.org/papers/w13284

Finance

Can the cost of the project be lowered by the government providing some of the finance?

1. Refinancing gains: The financial arrangement of the contractor is often restructured after the end of the construction period to recognise the changed risk characteristics of the project. Either some of the equity is replaced by debt to recognise the reduced risk, or the interest rate on the debt is reduced. The latter is referred to as a refinancing gain.

   Infrastructure Australia guidelines advise that refinancing gains should be shared between the government and the private party.

   The refinancing gains are in effect the reward for the risk taken during the construction phase. This is sometimes forgotten, giving rise to the public perception that the contractor appears to be making excessive profits. The purpose of sharing in the gains is to reduce that perception.

   The issue is similar to profit/revenue sharing: sharing in the refinancing gains reduces the benefits of a PPP because it reduces the contractor's incentive to optimise whole-of-life costs and benefits. It also adds complexity to the PPP arrangement. The need for sharing in the refinancing gains should be tested with the government in every instance.

2. It is sometimes asserted that the government's cost of borrowing is less than the private sector's. This is of course correct, but what matters is the total cost of capital, which is the sum of the cost of debt and the cost of equity.

   Equity provides debt-holders with some security that the debt will be repaid, because debt is repayable before anything is paid to equity holders. The lower the gearing (ie, the debt equity ratio), the greater the security provided to debt holders and therefore the lower the cost of debt.

   In the case of the government, there is no equity. However, the cost of borrowing is low because of the taxpayer guarantee. Because the guarantee is unlimited, it provides greater security than any level of equity. The "gearing" is therefore effectively extremely low. The guarantee is typically not accounted for, and is indeed difficult to value. However, it is by no means costless - the debt has to be repaid out of taxpayer funds even if the project is a failure.

   Finance theory suggests that the cost of capital in relation to a project depends on the risk characteristics of the project and not on the characteristics of the entity that owns the project. A common mistake is to assume that the cost of capital required to fund a project is the average cost of capital of the entity that owns the project. So, for example, if the project is owned by an entity with a AAA credit rating then it is assumed that the cost of capital is lower than if it is owned by an entity with a CCC rating. But this is incorrect - what should be taken into account is the incremental cost of capital. So if the project itself is risky, then it will have the effect of reducing a little the average credit rating of the AAA entity, but it might not reduce the average rating of the CCC entity if the project has a similar risk profile as the rest of the entity. The marginal cost of capital is therefore likely to be the same regardless of which entity owns the project.

3. It is sometimes claimed that the government's cost of capital is lower because the risk premium demanded by private sector investors is excessive.

   Whether the risk premium demanded by private sector investors is excessive is a controversial issue in the literature of corporate finance. It is not clear, however, why this implies that the government's cost of capital would be lower. If private sector investors demand a high risk premium, for whatever reason, then presumably they will also demand it when "investing" in government projects by way of the taxpayer guarantee associated with government borrowing.

We therefore conclude that there is no reason to believe that the government's cost of capital in respect of a particular project is lower than what the private sector's cost of capital would be in respect of an investment in the same project.

Taxation

It is the Government's policy that contractors' financing arrangements should not be based on the exploitation of a tax base, whether that of New Zealand or that of other countries, unless they are explicitly sanctioned by the governments of those countries.

Payment Mechanisms

No payments should be made until the service which has been contracted is available. For example, in a water treatment project, no payments would begin until the plant has been commissioned and water of the required quality is being received, ie, no payments should be made for inputs.

The payment should only be paid to the extent that the service is available, ie, it should be proportionate to the quality or quantity of units. There should not be a fixed element which the contractor receives irrespective of performance. In principle, abatements for non-performance (or penalties) should be large enough so that the contractor's incentive to perform or to remedy performance defects is fully aligned with the government's interests.

Where future changes to the services are anticipated but not quantifiable at the point of contracting, the arrangement should allow government adequate flexibility to require, and reward, changes in the nature or volume of services to be delivered over time.

As far as possible, payment provisions should be sufficiently flexible to accommodate future expansions or additional requirements on a commercial basis without needing to negotiate a separate arrangement.

Requirement for Committed Finance

The government will want assurance that bidders are able to complete the project. This will be dependent in part on their ability to obtain finance. Three options are available:

a. Bidders are not required to provide evidence of committed finance.

b. Bidders provide commitment letters from providers of both debt and equity. This would give the government comfort that funds are available, although it should be recognised that these commitments generally provide an opportunity for financiers to withdraw from the project under certain conditions.

c. Bidders provide evidence of fully underwritten finance.

In cases (a) and (b), bidders should be required to provide performance bonds which are not returned until the winning bidder has obtained finance or has provided evidence of fully underwritten finance, or has started construction and has incurred expenditure at least equal to the size of the bond.

If performance bonds are required under (a) and (b), then the three options are effectively equivalent from the government's point of view. Bidders could be given the opportunity to choose between these options.

Further work is being undertaken to enable us to provide definitive guidance on this issue.

Other Commercial and Contracting Principles

Development of the actual contract documents should be underway in this stage of the procurement process. To minimise the need for subsequent negotiations, consideration should be given to consulting likely bidders on the detail of the contract documents.

More detailed guidelines on the commercial principles that should be applied will be provided in due course.

Market Sounding

It is useful to include the private sector in consultation during the project development phase to flesh out commercial principles. Key advisers, associations, or specific companies may be contacted to address prime issues such as checking the availability of certain sets of skills in the industry or organising a forum of interested parties to provide public input on issues. In consulting specific parties, care should be taken to ensure that no individual organisation is given an unfair advantage over another. This may be achieved, for example, by advertising the opportunity to participate in a consultation forum in appropriate industry journals. Appropriate consultation makes it more likely that the final package presented in the bid stage will be attractive to the private sector. A forum is also an effective way for government to get feedback on issues with which it may have little expertise. Government also has an opportunity at this time to express its key objectives for the project, to explain the public benefits and to market the project generally. Consultation is discussed in greater detail in Chapter 15 of Infrastructure Australia's *Practitioners' Guide*.

8. Business Case (Stage 2)

- Seek approval to issue the EoI
- Obtain delegated authority to commit

Seeking Expressions of Interest is a critical step in the procurement process. It signals to the market that the government is serious about entering into a PPP. Cabinet approval (in the case of government departments and Crown agents) therefore needs to be sought.

Bidders can be expected to start incurring significant expenditure in preparing themselves for the bidding process from now on. The reputational risk to the government's PPP program therefore increases significantly if any decision to discontinue the PPP process is made after this point.

The main functions of the stage 2 business case are to:

- establish a best estimate of the likely outcome of the bidding contest
- obtain Cabinet agreement to the commercial principles
- obtain Cabinet agreement to issue the invitation for Expressions of Interest (EoI)
- obtain Cabinet agreement to the tendering process and clarify who has authority to approve the issue of tender documents
- obtain delegated authority from Cabinet for someone (eg, joint ministers, a single minister or a chief executive) to decide the winning tender and execute the contract.

9. The Bidding Process

- Evaluate responses to the EoI and develop a shortlist
- Develop RFP and contract
- Seek approval to issue RFP
- Evaluate bids

Chapters 4 and 5 of the *Infrastructure Australia* Practitioners' Guide[19] describe the steps to be taken in seeking Expressions of Interest (EoI) and in conducting a tender and are not replicated here. The following comments are also relevant:

Expressions of Interest (EoI)

The objective of inviting expressions of interest (EoI) is to ascertain the level of market interest and determine whether the parties have the financial capacity, technical capability, demonstrated understanding of government requirements and resources to deliver the project.

An alternative approach that could be considered would be to demand a significant financial bond which is only returned if a bidder is removed from the short list, or at the time the contract is awarded to the winning bidder. Market soundings would need to be taken before it is decided to use bonds as an alternative to an evaluation at the EoI stage.

A practice has been observed overseas whereby some large construction companies have subsidiaries in each of the bidding consortia. This has the potential to reduce or compromise competition. The principle should be that parties with an equity stake in a bidding consortium should be completely independent of the parties that have equity stakes in other consortia.

Request for Proposals (RFP)

At this stage a project brief and draft contract is issued. Consideration should be given to requiring bidders to indicate precisely what amendments they propose to the contract documents and accompany each proposed change with a dollar adjustment to the bid price that would leave them indifferent between having the amendment and not having it (this would reduce the need for a negotiation).

Bid Evaluation

Consideration should be given to simplifying the bid evaluation process by requiring bidders to submit their bids in two parts: a technical bid and an economic bid, adopting the following two-stage process[20]:

- Determine whether bids are conforming and meet minimum acceptable service requirements.
- Of the bids that pass the test in (a), select the cheapest.

---

19 See "Volume 2 Practitioners Guide" at http://www.infrastructureaustralia.gov.au/public_private_partnership_policy_guidelines.aspx

20 This is standard practice in Chile.

While the fact that this approach does not encourage bidders to offer a higher service level than what is demanded in the tender documents, there remains the question as to why taxpayers should pay for a higher standard than was deemed appropriate. The best approach will depend on the specific project. In some cases, it may be beneficial to pay more for a solution that exceeds the bare minimum.

Where the Project Brief indicated to bidders that the government will also consider higher or alternative service levels, then it may be necessary to evaluate bids on a multi-criteria basis. But care needs to be taken to avoid biases and double counting.

Biases can be avoided by measuring all criteria by a common denominator such as dollars.

Example:

If one bid just meets the minimum requirements but another bid offers an enhanced service at a higher price, then an acceptable methodology would be to measure the value of the expected service levels in dollar terms and compare the two bids in terms of the net present value of each. If service enhancements will be considered, then the project brief should set out how the value of services will be measured.

10. Project Finalisation Review and Final Negotiation

- Confirm achievement of policy intent
- Probity review
- Report to ministers
- Execute contract

Chapter 6 of the *Infrastructure Australia* Practitioners' Guide describes the steps that need to be taken between selection of preferred bidder and contract execution. These are not duplicated here. A point worth emphasising is that negotiations can be minimised or avoided if:

- potential bidders are given the opportunity to comment on the draft contract before the Project Brief is issued, and
- the Project Brief provides that all proposed changes to the contract are accompanied by a dollar adjustment to the bid price that would leave the bidder indifferent between having the amendment and not having it. The government could then decide which changes to accept without the need for further negotiation.

11. Contract Management

- Formalise management responsibilities
- Monitor contract performance
- Manage variations

A full-time contract management team is usually required to monitor performance against key performance indicators, approve payments and deal with contract variations.

While the team will want to monitor the construction of the facility, care will need to be taken not to get drawn into approving aspects of the design or construction method, as that could create a legal risk for the government. For example, it will be easier for the contractor to claim that the government has some co-responsibility if there is subsequently a performance failure. Accordingly, it will be essential to ensure that an appropriate design review procedure is incorporated into the contract which enables the team to comment on or object to design materials without being taken to have given their approval to them.

Contract variations can lead to significant risk transfers back to the government and therefore cost increases beyond those previously approved by Cabinet. Consideration should therefore be given to establishing an independent approval process for contract variations, which could be specifically provided for in the contract. For example, the process could provide for variations to be approved by the Minister of Finance as well as the sectoral minister.

Appendix 1: Description of Alternative Procurement Types

Parts of the following sections are drawn from the 'Report of the Waterview Connection Procurement Steering Group' dated 26 June 2008[21]. They describe the main features of the main procurement contract types. These are stylised descriptions – in practice contracts are tailored to the circumstances and a wide variety of variants can therefore be observed. The descriptions are followed by an analysis of the pros and cons of PPPs vs conventional procurement methods.

Separate Design and Construction Contracts

The traditional way of procuring services in the public sector is for a design contract to be let first, and then for a construction contract to be let. The designer is often contracted to supervise the builder.

Design & Construct (D&C)

Under the Design & Construct (D&C) contract method, the client lets a contract to develop a concept design, and then lets a D&C contract under which the contractor both designs the project on the basis of the project specifications as set out in the concept design as well as builds it, but without having involvement in the development of those project specifications. Contractors are appointed on the basis of price and quality.

The process for the Design and Construct method is generally:

- the public sector party engages expert advisers to assist its internal project team with project specification
- the project is specified based on input requirements and a concept design
- a competitive tender process is run to select a contractor:
  - Expressions of Interest (EoI) process to select a shortlist
  - request for tender process to select a preferred tenderer from the shortlist
- a contractor is appointed and the parties enter into a fixed price, fixed time contract to undertake the design and to construct the project. Most (but not all[22]) design and construction risks are transferred to the contractor
- the contractor prepares a detailed design that meets the requirements of the public sector party through a consultative review process and constructs the project based on the final agreed design, and

---

21 See http://www.treasury.govt.nz/publications/informationreleases/waterview/wcpsg-report-26jun08/wcpsg-report-26jun08.pdf

22 For example (in the case of a tunnel contract), ground conditions if they are not known prior to letting the contract.

- the contractor is paid on the basis of progress during construction. In fact, the contractor can find itself to be in a cash positive situation, if it receives progress payments before it pays subcontractors.

The two main features that are relevant for a comparison between procurement options are:

- the incomplete transfer of risks means that the final outturn cost is often higher than provided for in the contract. And the management of risks that remain with the client may not be managed efficiently
- the practice of making progress payments means that the contractor does not bear the full cost of delays (unless large penalties are included in the contract for every week the project goes over time). The incentive to complete the project on time is therefore weakened.

Alliance

The Alliance method is a collaborative approach to contracting where all participants work in an open manner to deliver the project, sharing the risk and rewards of completing the project on time and on budget. The Alliance relationship is based on the following principles:

- emphasis on the business outcomes of all parties (i.e. win - win)
- clear understanding of individual and collective responsibilities and accountabilities
- equitable balance of risk and reward for the parties (including sharing of pain/gain in terms of outcomes)
- encouragement of openness and co-operation between the parties
- encouragement to develop and apply innovative approaches and achieve continuous improvement
- access to and contribution of the expertise and skills of all the parties, and
- commercial basis which offers the opportunity to achieve reward commensurate with exceptional performance.

The Alliance method is best suited to projects where:

- output specifications cannot be clearly defined upfront and/or there is a high likelihood of significant scope changes
- there are complex stakeholder issues or external threats or opportunities that are best managed collectively
- there are tight timeframes, and
- there is a need for owner involvement during construction.

The commercial goal of contractors is to maximise revenues and minimise risk. This is achieved in an Alliance by locking in a profit margin, avoiding major downside risk and retaining opportunity for upside risk. Downside risk sharing by the contractor is typically limited to the profit margin. The impacts of cost overruns are borne jointly by the public sector party and the private sector, although the latter only has its margin at risk.

The process for the Alliance method is generally:

- the public sector party engages expert advisers; however, the private sector partner is likely to provide experts as well
- under a **Pure Alliance** the public sector party develops the project design and negotiates the Target Outturn Cost (the target cost) collaboratively with the selected private sector party
- under a **Competitive Alliance** the public sector party develops the project design and negotiates the target cost in parallel with two potential private sector contractors. The target cost is finalised with the preferred contractor. A Competitive Alliance attempts to provide a better balance between ensuring a competitive price and improving project outcomes through early contractor involvement, which provides the opportunity for design innovation
- the public sector party engages an external auditor to verify the target cost and to confirm the amount was developed in accordance with the agreed principles
- the alliance agreement is finalised and funding approval is obtained/confirmed
- detailed design work is undertaken
- the private sector partner leads the construction of the project
- an ongoing audit program is used to ensure what items are reimbursable and what items are deemed to be covered by the gain/pain share arrangement, and
- the contractor is paid on the basis of progress (generally on a cost of work completed, rather than a cost to complete basis).

The principal advantage of an alliance is the ability to commence construction before plans are finalised, while the two principal disadvantages are likely higher cost (as costs are not determined in a competitive process) and the weakened incentive to complete on time as a result of the practice of making progress payments.

Variants: 'Fixed Price' and 'No Progress Payments'

A 'fixed-price' contract differs from conventional D&C and alliance contracts in that risks are rigorously allocated to the party that can best manage those risks. For example, the risk of unknown ground conditions in a tunnel project should be allocated to the contractor, because although the contractor may have no more information about this risk than the client, the contractor is better placed to manage the risk if it eventuates.[23] While the allocation of more risks to the contractor is likely to result in a higher contract price, the all-up cost of a project to the client should on average be lower because risks are managed more efficiently. Moreover, the client has greater budget certainty.

Both D&C and Alliance contracts typically provide for progress payments to be made at certain stages of construction. An alternative is for the contractor to be paid at the end of the contract only. Consequently, the contractor usually requires private finance to cover costs during the construction period. The impact of finance is similar to a PPP, in that the

---

23 Similarly, under a D&C the client often bears the exchange rate risk. However, a contractor has some ability to manage this risk through the choice of input materials and the timing of purchases.

contractor is incentivised to complete the project on time or early. While the contract price is higher because it includes the cost of finance, the overall cost to the client should be lower because the contractor is incentivised to optimise the finance cost against speed of construction. Another benefit is that the construction finance cost, which is often not reported to ministers at the project approval stage, is made explicit.

Fixed price and no progress payments together increase the probability that the project comes in on-budget and on-time. They are also features of PPPs (see below). In fact, delivering a project on budget and on time are said to be the main advantages of PPPs. This discussion shows that these advantages can also be obtained under conventional procurement.

PPPs

PPPs are whole-of-life contracts which combine a 'fixed price / no progress payments' contract with a long-term service delivery contract. The contractor is paid by way of service payments over the life of the contract. At the end of the contract, ownership of the asset usually reverts to the government, although this is not an essential feature.

Since service payments are pre-specified in the contract, cost overruns from the client's (ie, government's) point of view are therefore unlikely.

Because the contractor bears the full finance cost consequences of any delay in construction completion, the contractor is incentivised to complete the project on time. As with conventional 'fixed price/no progress payments' contracts, completion delays are therefore less common than for other conventional procurement methods.

Because the contractor is interested in minimising whole of life costs, the contractor has an incentive to ensure that the asset is built to an optimal quality standard. The client (ie, the government) therefore needs to put less effort into monitoring construction standards than is the case with conventional procurement methods.