

Principles of Best Practice

Construction Procurement in New Zealand

January 2006



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The Council provides a focal point for debate and dialogue on cross-sector issues, which would be difficult or impossible for any single organisation, no matter how large, to undertake alone.

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Foreword

New Zealand is currently in a time of unprecedented private and public sector construction activity which is expected to continue, at least for the infrastructure industry, for the next ten years.

Applying best practice principles of procurement for construction works is absolutely essential if New Zealand is to get best value from these construction works.

This document highlights the need for a balanced approach to procurement in line with international best practice and I am pleased to encourage all purchasers of construction work in New Zealand to use it.

A handwritten signature in black ink, appearing to read 'Kevin Brady', with a large, stylized flourish at the end.

Kevin Brady
Controller and Auditor-General

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1. Introduction

1.1 Background

In response to Members' concerns with procurement practices in the construction industry in New Zealand, the New Zealand Construction Industry Council (NZCIC) contracted research into current procurement practices in New Zealand, the United Kingdom and internationally to compare, evaluate and recommend current practice. The findings from this research were contained in the document entitled "*Best Practice Procurement in Construction and Infrastructure in New Zealand Discussion Document*" published by NZCIC in October 2004.

This research found that procurement practice in the construction sector in New Zealand has tended to be based primarily on competitive pricing models that focus the process on:

- Economic objectives (e.g. return on investment)
- Cost over value
- Short rather than long-term outcomes (the construction of a building, road etc to meet an immediate need or opportunity)
- Construction and not whole-of-life costs
- Risk and liability transfer to suppliers/providers

It further found that this could result in:

- Hidden costs coming from increased maintenance, building re-fitting, and increased health and safety risks
- Design quality and integrity, health and safety, training, the environment and innovation sometimes being compromised or inhibited as pressure is exerted to minimise costs
- Bidders, seeking every possible cost-efficiency, underestimating actual costs associated with undertaking the work and pricing at unsustainable levels at the tender stage in the procurement process
- Risks being inappropriately allocated or transferred to suppliers/providers (often through fixed-price contracts) who are not always in a position to control or manage them
- Increased tender and construction costs as suppliers/providers seek to cover the increased risks and/or recoup costs through variations requiring greater client input in contract management.

Therefore, NZCIC concluded that purely cost-based selection attracts long-term costs that erode value.

NZCIC noted that internationally there is greater recognition, and an increasing acceptance, that factors other than price minimisation are key determinants of the procurement process in obtaining "Best Value" from procurement decisions. This is particularly so in public sector procurement in New Zealand. This is evidenced by new legislation in transport and building, and changes to funding criteria in major public works where more value-based selection criteria and processes are being introduced.

Given these developments and taking a leadership position, NZCIC determined to identify the underlying principles of Best Practice Procurement for achieving Best Value outcomes to apply in developing Best Practice Procurement Guidelines for Construction Procurement in New Zealand. This document is the culmination of that process.

1.2 Definitions

For the purposes of this document, the following definitions have been used:

Best Practice

'Best Practice' is defined as the policy, systems, processes and procedures that, at any given point in time, are generally regarded by peers as the practice that delivers the optimal outcome, such that they are worthy of adoption.

Best Value

The primary goal when procuring construction services is to achieve "Best Value".

In this context, 'Best Value' means the most favourable value (measured against financial and non-financial criteria) from the service procured. It includes purchasing a service that delivers the optimal outcome, and is cost-efficient, after taking into account the following non-financial attributes:

- Quality
- Impact on communities and the environment
- Design integrity
- Innovation
- Whole-of-life considerations such as maintenance
- Training and development opportunities
- Excellent health and safety practices, and
- Capital invested.

It provides a fair return on capital and effort for all parties, and is the result of a process that is mutually satisfying to all parties involved.

Lowest Cost

'Lowest Cost' is defined as meaning the lowest dollar value without consideration of the non-financial attributes.

Procurement

'Procurement Method' is the phrase given to the process by which clients and users achieve the delivery of their construction projects. 'Procurement' means much more than just the purchase of products and services. It covers the process from initial concept planning and design, to development, construction, maintenance and ongoing monitoring of performance.

1.3 Why Use Best Practice Procurement Procedures?

The principal benefit accruing from Best Practice Procurement Procedures is improved returns from increased asset value and reduced whole-of-life costs when measured in both monetary and non-monetary terms. This is achieved through:

- A reduction in hidden costs associated with maintenance, building re-fitting, infrastructure renewals and safety risks over the economic life of the asset
- Improved design quality and integrity, health and safety, training, environmental management and innovation as pressure to minimise costs is replaced with positive incentives to achieve best practice
- Increased market sustainability as pressure on suppliers/providers to simply cut costs is reduced and they are encouraged to innovate and seek better design solutions, health and safety practices and training opportunities
- Improved risk management by appropriately targeting risk allocation for mitigation to those most able to influence or control them
- Improved monitoring of the outcomes of contracts, with consequent improved information on the actual quality of the product/service, and its performance over the longer term
- A positive impact on the community and the environment
- A reduction in the number of contract disputes.

1.4 Purpose of this Document

Against this background, the purpose of this document is:

1. To identify general core principles underlying what NZCIC believes to be Best Practice Procurement in Construction for the achievement of Best Value, and
2. To suggest broad Guidelines for developing Best Practice Procurement policies and procedures for use in construction procurement in New Zealand, for use by individual clients and sector groups within the overall construction industry to develop their own Best Practice Procurement policies and procedures.

1.5 Focus of This Document

This document is focused on Best Practice to achieve Best Value outcomes in principally high cost, large or complex projects.

NZCIC believes that purely cost-based selection attracts long-term costs that erode value. Consequently this approach cannot be considered Best Practice Procurement leading to a Best Value outcome. This document therefore has a focus on quality and value-based selection.

This document simply makes the point that, in considering value, there are a number of factors other than price that contribute to it for both client and contractor. These factors cannot always be included in a cost-based procurement methodology. In this context, this document's primary focus is on principles to apply when solely cost-based procurement techniques may not be the most appropriate.

Neither does this document recommend a 'one shoe fits all' approach. For any project there may be several different procurement options, from entirely cost-based, to entirely quality or value-based procurement, to a number of combinations in-between. Clients will be best placed to make choices about which procurement approach will best suit their needs.

Despite its belief that purely cost-based procurement cannot be considered Best Practice Procurement for a Best Value outcome, NZCIC recognises that primarily cost-based selection processes can be appropriate in some circumstances.

In this context, the use of a lowest cost selection method may result in the Best Value procurement outcome where a client:

- Can easily and clearly specify the scope and standard of work that is required
- Can readily identify and mitigate all project and delivery risks involved, and
- Has experience with substantially similar project works, working with qualified reputable suppliers/providers.

Examples might include ongoing straightforward maintenance contracts, construction of buildings to a single common design specification, or the like.

Finally, while this document is aimed at higher cost, large, complex works, this does not exclude these principles being used in lower cost, less complex projects.

2. Key Principles of Best Practice Procurement

2.1 Best Practice

Best Practice Procurement should be based on:

- Structured Procurement Processes
- Quality-Based Selection Processes
- Achieving Best Value outcomes

2.2 Key Principles

The Key Principles are:

- Procurement processes are focused on the delivery of Best Value outcomes. This is seen to be not necessarily the lowest cost, but the best balance of design quality and integrity, construction, and “whole-life cost” to meet the user requirement.
- There is a recognition that the service provider/supplier needs to be able to obtain an adequate return to be able to remain viable. Fees should not be forced down to the point where consultants and contractors cannot afford to assign properly qualified staff for sufficient periods of time.
- Selection of the procurement method to be used is clearly defined.
- Partnering approaches (working together to improve design and construction, encourage innovation and reduce accidents and costly future maintenance activities) are encouraged where appropriate to the project.
- The process for the selection of suppliers is clearly defined and transparent.
- Consideration is given to the benefits of pre-qualification (on attributes) of consultants and contractors, particularly for larger projects. There also needs to be a systematic approach to monitoring the performance of the contractors.
- Supplier selection is based on quality as it contributes to Best Value outcomes.
- Project scope is finalised when the client has had an opportunity to thoroughly discuss the project details with the best-qualified firm(s).
- Health and safety practices/criteria, consistent with all legislative requirements and, in the case of Government agencies, the requirements of the New Zealand Injury Prevention Strategy, are incorporated as part of the selection process.
- Relevant factors relating to sustainable development and the environment are built into contract specifications.
- There is adherence to a recognised quality assurance system.
- Performance measurement indicators and the use of tools such as value and risk management and whole-life costing are adopted as standard.

2.3 Benefits of Quality or Value-Based Procurement

Key benefits produced by quality or value-based procurement include:

- **Positive relationships.** The critical client/contractor and client/consultant relationships are enhanced from the beginning of the selection procedure by being based on cooperative problem solving, which is not adversarial as can be the case in a selection process based simply or predominantly on price. Focusing on value outcomes brings the client and the service providers together as a team from the beginning – often a key ingredient to ensure a quality project.
- **Clearly defined and mutually agreed upon scope.** Project scope is best determined when the client has had an opportunity to thoroughly discuss the desired project outcomes with the best-qualified firm. Agreement can be reached upon the number of alternatives to be explored; the degree of attention to be given to environmental/consent issues; cost effectiveness; cost construction timeframe; social impacts; operation costs; and maintenance details.
- **Fairer fees.** Fees will be fairer to the client, the contractor and the consultant because they are negotiated after the value parameters of the assignment are fully established. Contractors and consultants will not be under pressure to achieve a low cost outcome that could result in their minimising their efforts or compromising on materials and design quality and integrity. This means the project will better enhance the built environment, minimise impact on the natural environment, be safer, more efficient, more durable and more economic to operate over its life cycle.
- **Long term cost effectiveness.** The correct selection of a top qualified contractor has major impact on the overall project costs. The decisions made by the contractor in the first 5 percent of their involvement in the project, have the highest leverage on the life cycle cost of the project.

3. Suggested Best Practice Guidelines

Suggested Guidelines to drive Best Practice in Procurement are set out below.

3.1 Structured Procurement Process

As a minimum, a structured procurement process with the following key features should be adopted:

- Clearly defined selection of the procurement method to be used, including specification of the particular project requirements and/or scope in general form; evaluation of the various procurement methods to determine which best suits the requirements of the project or services being procured; and development of the contract management plan to match the procurement method.
- Careful consideration is given to the issue of defining the specification properly – e.g. considerations such as package size, length of term/contract duration, risk, pricing incentives etc. Specification can be functional, performance-oriented, technical or a combination of these elements.
- When specifying the goods or services to be procured the specification contains a clear, concise, logical, and accurate description of what is being purchased, and covers mandatory and non-mandatory requirements for the goods or service, including:
 - Requirements relating to timetable, delivery date; and
 - Performance standards, including key performance indicators and targets covering inputs (the total resource), outputs (what will be produced), and outcomes (the impacts of the service).
- A contract management plan is used. The objectives of this plan include:
 - Setting out who will be involved in the management of the contract, and their skills, roles and responsibilities
 - Describing how the performance of the contract will be measured and reported
 - Defining the administrative and financial arrangements in relation to the contract
 - Establishing who is responsible for the management of different types of risk
 - Specifying how inspection, review, or internal or independent audit will be undertaken and
 - Establishing procedures for resolving disputes or grievances.

3.2 Qualification-Based Selection Processes

As always the project specifics will need to be taken into account and the procurement method used chosen to best reflect specific project conditions.

Qualification-based selection processes are used most extensively in larger, higher value, or more complex projects and particularly, but not exclusively, for the procurement of consultant services.

Practices include:

- A clearly defined process for the selection of suppliers (including clear, transparent evaluation systems and criteria) that determines the ability of suppliers to meet the specified requirements and add value; measures the proposed investment in training, and health and safety during delivery; and focuses on value and how this is to be added and measured.
- Processes whereby clients identify potential suppliers with relevant experience; select the most appropriate firm on a quality basis; thoroughly discuss the project details with the best-qualified firm; agree upon the number of alternatives to be explored, the degree of attention to be given to environmental/consent issues, cost effectiveness, cost construction timeframe, social impacts, operation costs, and maintenance details; and then negotiate the fee on a mutually agreed scope of services with the selected firm; and execute appropriate agreement terms.
- For larger projects, suppliers should be pre-qualified based on attributes and in part on their implementation of best practice, where responsibilities are written into tender and contract documents, and where tender submissions are evaluated, based in part, on best practice standards.
- Non-adversarial selection methods that do not force fees down to the point where service providers cannot afford to assign properly qualified staff for sufficient periods of time. Inadequate fees can lead to the reduction of the scope and quality of the work, by spending less time on the project, assigning sub-standard materials, or assigning lower paid (usually less qualified) personnel.

3.3 Relationships

Practices include:

- Processes where client, consultant, contractor and suppliers work together as a team – this can enhance whole-life value while reducing total cost, improve quality, bring about innovation, and deliver a project more effectively than in a traditional fragmented relationship that is often adversarial.
- Partnering approaches (working together to improve design, reduce accidents and costly future maintenance activities) to procurement and delivery.

3.4 Training and Education

Practices include:

- The establishment of a national help desk-type organisation, that provides its expertise on process and system innovation to clients and contractors.
- Undertaking and circulating to all parties an inventory and evaluation of completed contracts, giving full disclosure of all aspects, to identify and inform the parties where performance issues arose and what improvements should be made.

3.5 Health and Safety

Health and safety practices include:

- Practices that ensure sufficient time is provided to plan, design and incorporate health and safety elements throughout the life of the project.
- Incorporating health and safety practices/criteria in the supplier selection process, consistent with all statutory and regulatory requirements.
- Requiring all Government agencies to be consistent with the New Zealand Injury Prevention Strategy.
- Providing client staff involved in construction procurement the ability to access current information on health and safety performance for all of their projects.
- Adopting procurement processes with the following features:
 - The selection of suppliers based on their commitment and demonstrable performance in respect of health and safety
 - The development of project specific proposals for managing health and safety
 - The adoption of procurement processes that involve those parties that will construct, operate, and maintain the facility and
 - The use of performance-based specifications that give relevant weighting to health and safety.

3.6 Environmental Outcomes

Relevant factors relating to sustainable environmental development are built into contract specifications. Specifications reflect environmental matters in keeping with sustainable or so-called 'green strategies', and contract award decisions are made on the basis of 'whole-life costs' (particularly including waste disposal and energy use). Flexibility for innovative environmental improvements is made.

3.7 Quality Assurance

The quality of the services received/product delivered is the paramount consideration. Quality, defined as conformance to client-defined requirements, must be clearly understood by the parties involved. A recognised quality assurance system is included in procurement documents and adhered to as standard practice.

3.8 Project/Industry Sustainability

Procurement agencies acknowledge their roles in fostering a sustainable industry, where suppliers can obtain an adequate return on capital invested, through positive market signals, including:

- The adoption of quality-based procurement systems
- Providing for the supplier to obtain an adequate return on capital invested
- Recognising the value suppliers add
- Working in a non-adversarial relationship
- Encouraging processes that enable suppliers to be innovative, skilled, responsible and responsive.

3.9 Monitoring and Accountability

Key practices include:

- Performance measurement indicators and the use of tools such as value and risk management and whole-life costing are identified and adopted.
- Construction contracts have requirements for measuring quality, cost and time dimensions, comparing achieved performance with that of similar projects and for identifying potential for doing things better.
- Clients measure their own performance and benchmark with other clients to identify areas for improvement.

3.10 Probity

Transparent processes are included in selection, evaluation, implementation, management, monitoring and review processes at all times.

Expert peer review processes may be included in evaluation, management, and monitoring and review processes.

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