
Consultants

Qualification Based Selection For The Procurement of Engineering and Management Services

The Association of Consulting Engineers Australia has developed the following Qualification Based Selection method, which is also endorsed by the Australian Council of Building Design Professionals Ltd.

The selection of consultants is important for achievement of quality project outcomes. Furthermore, the industry research on claims and disputes has identified the importance, and interrelationship, of design and documentation to the incidence of variations and claims and disputes (e.g. for delay and disruption). Consequently, attempts to save on consultants' fees and selection on the basis of lowest price has never made much sense. ACEA's Qualification Based Selection is commended. - J.T.

- The Association of Consulting Engineers Australia.

WHAT IS QUALIFICATION BASED SELECTION ("QBS")?

Qualification Based Selection is the process being recommended by The Association of Consulting Engineers Australia ("ACEA") and supersedes *Value Selection* as the most objective method of selecting a consulting engineer.

There is overwhelming evidence from the Australian construction industry that in selecting the services of a consulting engineer, clients should be guided by one primary consideration - the qualification and capability of the firm to meet their specific objectives in the project undertaken.

It is the same criteria that applies to choosing any reputable professional - skills, reputation, rapport, past performance, technical competence, and commitment to the client's interests.

Correct selection will have a major bearing on the quality, cost and success of the resultant project.

WHY QBS?

Every project is unique. Each has its own technical challenges.

At the outset of most projects, it is often difficult for a client to fully grasp the complexities involved or the variety of professional services that may be required to develop a solution.

The consulting engineer is required to represent the client's interests in day-to-day dealings with other

professionals, contractors, suppliers, equipment manufacturers and any others who provide goods and services for the project. It is, therefore, vital that the client and the consulting engineer share a relationship characterised by trust, respect and *effective communication*.

QBS brings the client and the consulting engineer together as a team. This is a key ingredient to ensuring a quality project. Working together, the client and consulting engineer can define the project in detail and agree upon the services that will be required to make the project a reality. Qualification Based Selection is a process that can be easily adapted to any project, large or small. It is a process that provides a client, or manager, private or public, with a professional partner. Together they will agree on the professional services required for successful and timely completion of the project.

SELECTING A CONSULTING ENGINEER

Many clients call upon a consulting engineer with whom they have already developed a relationship. Others may wish to, or be required to, gauge the merits of several firms before choosing.

Selection of the consulting engineer will have a major bearing on the quality, cost and performance of every project.

Increasingly, this is being achieved around the world using the QBS process which involves selecting consulting engineers based on:

- skills and qualifications of personnel;
- technical competence;
- reputation;
- experience on similar projects;
- capacity to undertake the project;
- understanding and commitment to the client’s interests.

Using QBS, the choice is made on these criteria and a fee is negotiated after the consulting engineer has been selected. (Negotiations are entered into with the preferred consultant - if these are unsuccessful, the second preference is then approached.)

QBS ENSURES THE BEST VALUE FOR MONEY

Selecting a consulting engineer based on qualifications ultimately provides the best value for a client.

Experience has shown that the competence of the consulting engineer is the key to an efficient and cost effective project.

Using QBS the client and consulting engineer work together to agree on a fair and reasonable fee for the project which reflects the quality of the engineer’s work. By matching scope of work to fee for service, QBS ensures optimum value for money.

This selection process encourages engineers to take an innovative approach which leads to designs which best meet client’s requirements.

PROBITY - A VALUABLE SAFEGUARD

Use of a well tried system like QBS, with clearly defined checks and balances, provides those required to make procurement decisions with a valuable safeguard to ensure the integrity of the selection process (refer evaluation process below).

This system is widely used by the public sector in the USA and Canada where it is considered to be a significant deterrent to abuse of the selection process.

QBS SAVES MONEY

QBS allows for proper assessment of cost-saving innovations.

It provides the flexibility for a consulting engineer to consider a wide variety of options in concept, approach and interpretation which inevitably saves money. Identifying these options is particularly important in the early stages of a project if significant cost savings are to be achieved subsequently in the construction, operation and maintenance of a project.

The very nature of consulting engineering means that the full scope of a project can only be defined once the consultant and client are working together as a project team.

On the other hand, price driven selection limits the flexibility of a consulting engineer to explore innovative avenues which result in optimal project performance. It often creates a situation where small initial savings can result in higher capital and life cycle costs later.

One or two percent more spent on design costs can save up to ten or fifteen percent of the project cost.

QBS IS RECOGNISED AROUND THE WORLD

The QBS system is recognised and used effectively around the world.

Since 1972 the United States Federal Government has applied it to all federal work. More than 30 US state governments also use it. QBS is also widely used in Canada, Europe and Asia. The World Bank and the Asian Development Bank are two of the many international financial institutions advocating the system for projects. The system is strongly endorsed by the International Federation of Consulting Engineers (“FIDIC”), The Australian Council of Building Design Professions (“ACBDP”) and by The Association of Consulting Engineers Australia (“ACEA”).

ADVANTAGES FOR THE CLIENT

Clients reduce their exposure to risk because they have a proven system with which to choose the best consulting engineer for the job.

A good client-consultant relationship is assured from the beginning of the process of QBS. Adversarial relationships are avoided. By first agreeing on the scope of the project, the client can make clear the emphasis on factors such as environmental impact, cost, schedules and social implications before fees are negotiated.

Fees are fairer to both client and consulting engineer because they are negotiated after the parameters of the work are established. Remuneration Guidelines published by ACEA may be used as a basis for such negotiations.

THE QBS SELECTION PROCESS

Selecting a consulting engineer is one of the most important decisions a client makes. The success of a project often depends on obtaining the most able, experienced and reputable engineering expertise available.

The selection process follows three steps:

1. Selection
2. Definition
3. Appointment

Step 1 Selection

- The client completes the project initiation process and prepares a project delivery brief.
- Firms are invited to submit proposals setting out qualifications and capabilities which are evaluated and a short list determined. As a guide the following criteria may be used:
 - previous experience, referees;
 - management and administration;
 - key personnel (availability);
 - key support equipment and systems;
 - research and development/examples of innovation;
 - project performance details;
 - quality assurance details;
 - life cycle costing skills.

- Firms are informed of their rating and ranking.
- Short listed firms are further evaluated through interview and/or technical proposals and ranked for project definition and appointment.

Evaluation

The evaluation chart below provides a useful guide for evaluating and ranking suitably qualified firms. This process helps to maintain the probity of the selection and involves:

- formation of a selection committee;
- a weighting or score for each criteria;
- separate evaluation of firms by each member of the selection committee;
- individual score sheets being collated and a documented record of the selection process made.

As an additional safeguard, clients may be assisted in this evaluation process by an independent consulting engineer.

Step 2 Definition

Negotiations are conducted with the top ranked firm relative to:

- scope of work;
- services provided; and
- fee and payment schedules.

If an agreement cannot be reached with the top ranked firm, those negotiations are ended and begun with the second ranked firm, and so on down the list until agreement is reached. ACEA Remuneration Guidelines may be used as a basis for negotiation.

Step 3 Appointment

An agreement covering the issues in Step 2 is executed. It is recommended that Australian Standard 4122 should be used for this purpose.

EVALUATION OF SHORT-LISTED FIRMS

Qualification Criteria	Possible Points	Points Awarded
Previous experience and referees		
Management and administration		
Key personnel (availability)		
Key support equipment and systems		
Research and development/examples of innovation		
Project performance details		
Quality assurance details		
Life Cycle Costing Skills		
TOTAL		