

“SELECTION BY ABILITY”

GUIDELINES FOR THE SELECTION OF CONSULTING ENGINEERS AND GEOSCIENTISTS



PROFESSIONAL ENGINEERS & GEOSCIENTISTS
NEWFOUNDLAND & LABRADOR

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Preface

This booklet sets out to help all those responsible for the selection of consulting engineers and geoscientists. It explains how to assess the ability of consulting engineering and geoscience firms and what method to use to select the best firm for the project. The phrase “*selection by ability*” has been chosen because it best represents the process of selection of consulting firms on the basis of experience, ability and integrity.

Selection by Ability

1. Introduction

1.1 The Problem

The problem facing owners and others who have the responsibility of selecting a consultant is to choose a firm that will provide an economic service and an efficient project.

1.2 The Nature of Consulting Engineering and Geoscience Services

In Newfoundland and Labrador, Consulting Engineers and Geoscientists form a part of **Professional Engineers and Geoscientists Newfoundland & Labrador**, otherwise known as **PEGNL**.

PEGNL has been formed under an act of the Provincial Legislature and bears primary responsibility for regulating the Professions of Engineering and Geoscience in the Province.

Firms offering services in Consulting Engineering and Geoscience must possess a valid Permit to Practice issued by PEGNL and individuals within the firm represented as Engineers and Geoscientists must also be registered as a Professional Engineer or Geoscientist with PEGNL. A condition of holding the Permit is that the Permit Holder maintain professional liability insurance.

The Permit indicates that a firm under consideration for providing consulting services has been sanctioned by PEGNL as having the professional integrity to provide the services within its area of expertise and can be entrusted with the public safety implications of the Profession.

1.3 Methods of Selection

PEGNL believes that the selection of a consultant must be considered with no less care than would be given to the selection of any other professional service organization, such as accounting or legal services.

While it is not the role of PEGNL to endorse one firm over another, the guidelines outlined in this booklet, plus other supporting information available, is freely given to prospective users of consulting services to assist them in their selection. It is also a guide to those providing such services.

2. Selection of a Consultant

2.1 Selection of Criteria

Selection by Ability

2.1.1 Introduction

The most important standards by which to judge a consulting firm's suitability to carry out a particular project are:

- availability of resources
- reasonable fee structure
- managerial ability
- professional independence
- professional integrity
- technical competence

The client should seek information on any of these matters if not already known by:

- obtaining comprehensive written information from the Consultant in the form of proposals
- talking to their senior personnel
- consulting their clients
- viewing the projects that they have accomplished and visiting past clients

2.1.2 Technical Competence

A consultant who is technically competent will be able to offer the client a team that has the education, training, practical experience and technical judgement to carry out the project.

The client can assess the technical competence of the team by:

- asking for a statement of methodology of technical approach and the techniques to be utilized in the performance of the work
- obtaining a list of similar projects carried out by the firm and its staff
- examining the experience and qualifications of the personnel to be engaged on the project
- discussing the merits of the Consultant's previous projects with owners and users

2.1.3 Managerial Ability

To complete a project successfully a consultant must have managerial skills to match the size and type of project. The consultant will need to marshal sufficient manpower resources, maintain schedules and ensure that the work is planned in the most straightforward fashion. The consultant will need to be able to deal with contractors, suppliers, and government agencies during the course of the project. At the same time the client must be informed of the development of the project so as to be in a position to make decisions quickly and accurately.

Selection by Ability

The client can assess the managerial ability of the team by:

- examining the consultant's record of project achievement
- examining the success of the proposed project manager on previous projects
- asking the consultant to explain in the submission how the project is to be managed
- confirming that the client can communicate with the consultant verbally and by correspondence
- checking the consultant's proposals to transfer technology.

2.1.3 Availability of Resources

When selecting a Consultant it is important to establish whether the firm has sufficient financial and manpower resources to carry out the project to the necessary technical standards and to the time and cost schedule. This will depend on how far the Consultant's current and future resources are committed.

The client can evaluate the resources of the consulting firm by:

- examining the technical and managerial abilities of the proposed team for the project
- asking for details of how the resources are to be deployed during the course of the project and how responsibility will be delegated to the participants
- asking for details of proposed staff deployment on the project and any alternates
- asking for details of other commitments the Consultant has during the duration of the project and how staff will be deployed on them
- checking the firm's credit worthiness
- checking the access to supporting resources
- checking the location of the firm's offices in relation to the proposed work;
- checking the firm's relationship with local resources

2.1.4 Professional Independence

When a Client employs a consulting firm which is licensed by Professional Engineers & Geoscientists Newfoundland & Labrador, there is an assurance that the consultant subscribes to PEGNL's Code of Ethics, professional status, competence and independence.

An independent consultant has no direct or indirect interest in commercial, manufacturing or contracting activities that might tend to influence one's professional judgement. The consultant is remunerated solely by the fees paid to him by his clients.

Selection by Ability

The consultant is therefore able to approach all assignments objectively and by using sound technical and economic principles provide solutions which serve the best interests of his clients.

The client can assess the independence of a consulting firm by:

- establishing whether the firm has financial or managerial ties with other organizations that could influence its independence or any other conflicting interest
- meeting the personnel running the firm
- checking that the firm is licensed with PEGNL

2.1.6 Fairness of Fee Structure

Consultants should be adequately paid to ensure that they are able to give a high quality service with proper attention to detail, alternative designs, materials, methods of construction and proper implementation.

Consultants must maintain highly competent staff and give constant attention to the research and development essential for remaining in the forefront of technical progress.

The fee structure should reflect the needs of the client and the objectives of the project.

2.1.7 Professional Integrity

Engineers and Geoscientists and professionals comparable to Medical Doctors, Lawyers, Accountants and Architects. As such, clients are encouraged to bring Engineers and Geoscientists into their trust.

The consultant must develop insight into the client's true need and intent. If trust exists between the client and his consultant, the result will be better interpretation of the client's intent. It is this very factor of trust which is the reason why consulting firms are commissioned by the same client again and again.

A valid Permit to Practice issued by PEGNL, subject to annual review, is an assurance of the Consultant's integrity. The consultant's integrity is bound by the PEGNL Code of Ethics. It is founded upon integrity, competence, devotion to service and the advancement of human welfare.

2.2 Selection Guidelines

Professional Engineers & Geoscientists Newfoundland & Labrador believes that “*Selection by Ability*” provides clients with a basis for comprehensive selection.

PEGNL recommends that the selection procedure used should reflect the needs of the clients as to the size and complexity of the project. Where the Client has an existing and successful relationship with a consultant, there is no need to go through an elaborate selection procedure. Where the Client has no existing relationship and must make a selection from a number of consulting firms competing on their technical and managerial abilities, the following steps are recommended:

1. Draft the terms of reference for the selection which should include an assessment of the physical magnitude and resource requirements of the project. The required services can be identified under the following headings:
 - areas of expertise and categories of service required
 - a statement of work defining the project requirements
 - a time schedule
 - regional factors such as geographic location, logistics, allowances, duration of commission
 - type of contract proposed
 - a projected budget
2. Make a long list of not more than twelve consulting firms which appear qualified for the appointment, from which a short list of the firms is to be selected for detailed consideration.

Names of possible consulting engineers or geoscientists can be obtained from:

- persons or organizations that have employed consultants for similar projects
- by advertisement

A list of PEGNL licensed companies together with their disciplines of practice is available on the PEGNL website (pegnl.ca)

3. Draw up a short list of between three to five consulting firms which appear best qualified for the project, bearing in mind the following factors:
 - experience
 - reputation
 - availability
 - access to complete the work
 - capacity to complete the work
 - quality of references

Selection by Ability

- location of the firm's office in relation to the work
 - relationship with local consulting engineers and geoscientists
 - political, social and environmental sensitivity
 - security level required.
4. The client may, at this stage, simply discuss the project with the most suitable consulting firms and negotiate for an agreement. More formally the client may write a letter to each of the firms on the short list and invite proposals.

A request for proposals should contain at least the following:

- the statement of work;
- supporting documentation and data relating to the work;
- submission or closing date,
- basis of evaluation,
- a statement of information to be included in the proposal.

Where appropriate, the request for proposal should also include:

- the alternative solutions to be considered
- transfer of technology, local participation and training
- detailed target/cost estimates for the project, as these elements can have considerable influence on the cost of consulting engineering and geoscience services

The information in the Consultant's proposal should include:

- past experience with projects of a similar nature to that proposed
- details of organization, project control, financial control
- size and responsibilities of staff
- type of organization and managerial methods proposed for the execution of the work
- knowledge of local conditions
- local resources
- technical approach to the project
- availability of resources
- approach and commitment to technology
- transfer when appropriate
- proof of professional licensure with PEGNL

Consulting firms should be encouraged to make an evaluation of the scope of the work by visiting the site and talking to the client.

Selection by Ability

5. Check out any details on the proposal and obtain additional information from any of the consultant's clients that are appropriate, visit similar projects carried out by the consulting firm and talk to end users.
6. Rank the proposals in order of merit. If the size of complexity of the project warrants it, this can be done by a team of experts including client representatives and consultants. Competing consulting firms can be separately interviewed at this stage to establish rapport, to listen to their presentations, to question them and to allow them to present their questions.
7. When an order of merit has been established, the firm listed as first should be invited to discuss its proposal, the contract terms and the fee structure.

During these negotiations, the details of the terms of reference are reviewed completely to ensure full mutual understanding with the firm. Discussions will include the contractual and legal requirements of the agreement and the detailed costs.

8. If agreement is not reached with the first ranked firm it should be notified in writing. The second ranked firm should be invited for negotiations and so on until a satisfactory agreement is reached. Once a firm has been rejected it should not be recalled for further negotiations.
9. When agreement has been reached, all those firms submitting proposals should be advised in writing of the client's selection.

2.3 Advantages of Selection by Ability

1. There is a greater likelihood of selecting a higher caliber consultant because many reputable consulting firms will not compete on the basis of price proposals. This is because they know that it is nearly impossible to give quality professional services for an inappropriately low priced proposal.
2. It enhances the important Client/Consultant relationship from the beginning of the selection procedure. Clients have an opportunity to appraise the personalities of the consultant's staff as well as the competence of the consulting firm and thus it lessens the chance of the incompatible selection. Clients are at a disadvantage if they enter an adversary relationship with their consultants.
3. By discussing the scope of the project, work plan and technical approach, the Client is better able to define the scope of the consulting services. Agreement can be reached upon the degree of attention to be given to environment impact, cost effectiveness, ease of construction, social impact, operating costs and maintenance details before fees are discussed.

Selection by Ability

4. Fees will be fairer to the Consultant and Client alike because they have been negotiated after the scope of work has been considered. Therefore consulting firms are not under pressure to minimize their costs by devoting less time to detailed design, by considering fewer alternatives, or by reducing the amount of checking. This will mean that the project will be safer, more efficient, and more economical to build and to operate.
5. Selection by ability does not involve consulting firms in preparing expensive priced proposals which have the effect of escalating the costs of consulting services.

3 Dealing with Difficulties

1. The person or persons responsible for the selection of the consulting engineer or geoscientist may experience difficulty in explaining to others the method and reason for selection. It is worth pointing out, however, that any client who avoids the responsibility of selecting consultants by ability cannot avoid the risk of being responsible for a project which is late, expensive, ineffective and sometimes a hazard to the public.

The best way of dealing with this problem is:

- to use an independent assessment panel
 - follow the selection procedure given in this booklet, which has been endorsed by PEGNL
2. It has been suggested that the client is at a disadvantage when negotiating fees after the consultant has been selected.

However, the consultant with whom the client is negotiating is under severe competitive pressure to agree to a fair and appropriate fee.

4 Professional Fees as an Element in Selection

There is often severe pressure for consultants to compete with each other on the cost of their services. Few clients are likely, in fact, to select their consulting engineer or geoscientist on price alone as it is obvious that satisfactory professional services depend on qualifications and competence.

The dilemma facing the client is how to balance ability against price, and how to quantify trade-offs in technical competence, managerial ability and trust against cost.

Selection by Ability

In many government departments and public corporations there exists pressure on the client to award all contracts to the lowest bidder. This is because competitive bidding is often the best method of procuring equipment and goods which can be specified precisely. The method has been adopted for the procurement of services without thought of the difficulties of specifying most consulting services.

A number of methods of selection have been devised that take account of professional fees early in the selection procedure but it is almost impossible to prevent cost dominating any subsequent objective assessment of other more important factors.

PEGNL firmly believes that is neither in the best interest of the client, nor for the end result of a project, that consulting firms be selected on the basis of a system which emphasizes a price comparison of their professional services.

The basic method recommended in dealing with professional fees as an element in the selection process is as follows:

Meet with the highest ranked consultant to clarify, in more detail, the scope of the project and work plan. At this time discuss the contract terms and proposed fee structure such as:

- payroll cost times a multiplier
- per diem rates
- percentage of construction or project cost

If the technical proposal meets the need, and the cost of consulting services is within range of the original budget, proceed to finalize an agreement. If the scope in the proposal is understated or overstated and the cost is out of target range, further discussion and clarification of needs may be indicated.

If scope and professional fees cannot be agreed upon, discontinue negotiations with the first firm and contact the second firm. Continue until mutual accord has been reached. Generally, clients reach this accord with the first or second firm.

In the event that the client requires proposals to include an estimated cost of professional fees, a recognized alternative is the two envelope system. Under this method consulting firms are required to submit a proposal in two sealed envelopes. The first envelope contains the technical proposal exclusive of price; the second contains the proposed fees for the professional services.

The client or its advisory board will analyze the proposals and establish the order of merit as before. Contract negotiations will begin with the firm presenting the best technical

Selection by Ability

proposal. The second envelope of this firm is opened in the presence of the firm and the price information will then form the basis for contract negotiations.

All other second envelopes should remain sealed and if an agreement is reached with the first firm, the envelopes should be returned unopened to their respective firms.

If an agreement is not reached with the first firm, it should be advised by written notification and negotiations undertaken with the second firm and so on until a ***Selection by Ability***

satisfactory agreement is reached. Once a firm has been eliminated it should not be recalled for further negotiation.