

THE ENGINEERING PROFESSION'S POSITION

- In the interest of public safety and to maximize the value of capital investments, companies and governments should adopt policies requiring that qualifications-based selection be used for the procurement of services for engineering works.
- Qualifications-based selection policies and processes for procuring engineering works maximize the value of the engineer's contribution to a project while reducing the project's life cycle costs.
- Qualifications-based selection emphasizes quality, fosters innovation, and generates real savings in construction, operations, and maintenance; saving money for Canadians while optimizing public safety and a high quality of life through reliable and effective service.

The issue

The procurement of services related to engineering works in the public sector is most often obtained through public tendering. Government purchases are driven by policies designed to ensure transparency and value. The service is described in detail in a tender document and sealed bids are invited. In many cases, the lowest bid receives the contract. The appeal for the lowest-price design solution appears to override the value that can be gained from considering life cycle costs.

A selection method that attaches an overriding significance to infrastructure costs, such as the cost of engineering fees, can result in a situation where design-time limitations restrict the licensed engineer's professional autonomy to find the best solution to improve infrastructure and protect public safety. Value is achieved when design alternatives are evaluated based on their life cycle costs. It is during the design phase that both construction and operations cost savings are most easily achieved.

Life cycle costing is critical since public infrastructure projects are long-term investments that are paid for with public funds. It is imperative that the most qualified firm is chosen for important projects that impact Canadian communities.

The most appropriate solution is not necessarily the cheapest design solution. The engineer's ability to devise the most appropriate solution depends on experience and training. A selection process, as outlined by the National Guide to

Sustainable Municipal Infrastructure (Infraguide), should include:

- The selection of an individual or team that is best qualified to undertake a particular assignment.
- The selection of an experienced team to develop the scope of services to ensure all opportunities for adding client value through the whole life cycle are provided for within the project.

Qualifications-based selection is a transparent procurement process used for the selection of architectural and engineering services for public infrastructure and construction projects. Under this system, the infrastructure owner considers a variety of competing engineering firms and selects a qualified firm, and then negotiates the project scope of work, schedule, budget, and fees.

This approach does not preclude the consideration of price in the process. Rather, it encourages consideration of price within a more meaningful context by bringing the fee into the equation after the scope of work has been jointly established and agreement reached with the top-ranked firm.

The engineering services available across Canada for public infrastructure and construction projects directly impact the safety and welfare of the Canadian public.

A national framework must include the implementation of policies that require qualifications-based selection to be used for the

procurement of all infrastructure-related projects and services and include climate resilience as a requirement. This will benefit Canadian taxpayers through improved reliability, climate resiliency, safety, and long-term savings through the entire life cycle of infrastructure.

Recommendations to the federal government

The federal government must adopt policies that require that qualifications-based selection must be used for the procurement of all engineering services and ensure sustainable infrastructure across Canada. The federal government must:

- Ensure that only qualified and experienced engineering firms across Canada are selected for public infrastructure and construction projects.
- Inform and educate infrastructure owners to understand the importance of selecting qualified and experienced engineering firms for public infrastructure and construction projects.
- Ensure that qualifications-based selection is used in any legislation or regulations that refer to engineering work and the procurement of all engineering services across Canada.
- Work with provinces, territories, and municipalities to develop and adopt a national standard for qualifications-based selection for procurement or incorporate such principles into existing documents and provincial and territorial equivalents.

How Engineers Canada will contribute

Engineers Canada will continue to collaborate with the Association of Consulting Engineering Companies – Canada, governments, and the provincial and territorial engineering regulators to promote and educate the federal government and other levels of government on the benefits of qualifications-based selection processes.

Engineers Canada will continue to call for a competitive qualifications-based selection process, such as that described in the 2006 National Guide to Sustainable Municipal Infrastructure's document Selecting a Professional Consultant, to be used by infrastructure owners and investors.