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Architecture Canada

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Presentation by the Royal Architectural Institute of Canada to the Standing Senate Committee on Energy, the Environment and Natural Resources

Good morning. My name is Emmanuelle van Rutten. I am a practicing architect and sit on the board of directors of the Royal Architectural Institute of Canada – the RAIC.

Our mandate is to advocate for excellence in the built environment in Canada, demonstrate how design enhances the quality of life and address important issues of society through responsible architecture.

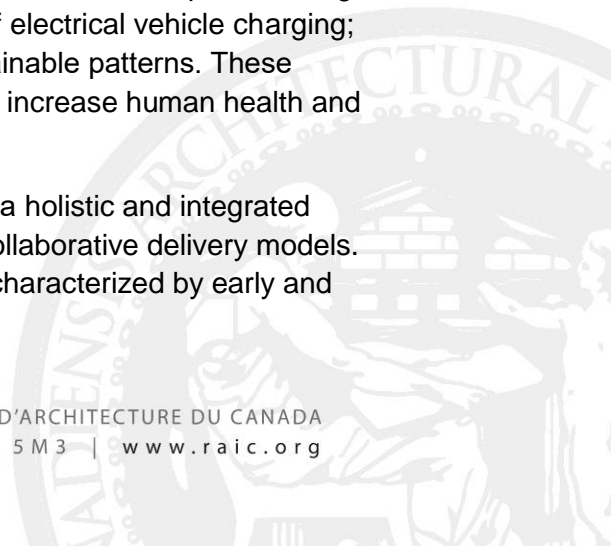
The RAIC has been addressing environmental challenges for decades; through education, advocacy and promotion of the 2030 Challenge. Our early sustainable buildings committee was the incubator for the Canada Green Building Council.

Currently, the championing of a low-carbon built environment is being carried out by the Committee on Regenerative Environments. Two other committees also have a strong sustainability focus: The RAIC Indigenous Task Force, which is concerned with living conditions in Indigenous and Northern communities, and the Age-Friendly Housing Task Force, which sees retrofits as an important aspect of aging in place. Our scope is national and we are also part of an international network of architectural associations that share information on sustainability.

Architects, as trained complex problem solvers, can help. Design is the act of creating holistic solutions, and architects are already designing high-performance buildings; leading multidisciplinary teams to deliver innovative projects.

At the scale of individual buildings, architects can reduce operational and embodied carbon production through: passive design strategies; energy efficiency measures; design for increased durability and resilience; innovations that find ways to use less space; integration of renewable energy sources; specification of low-impact building materials; promoting stair use and cycling; integration of electrical vehicle charging; the design to help shift people's behaviour to more sustainable patterns. These strategies serve to not only reduce emissions but also to increase human health and productivity.

It's not solely a technical fix. Successful projects require a holistic and integrated approach to the design and construction process, and collaborative delivery models. We urge the adoption of approaches to project delivery characterized by early and



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regular involvement of owners, architects, consultants, constructors, fabricators and end user/ operators in an environment of effective collaboration, mutually defined goals and open information sharing. Among other benefits, an integrated project delivery process can increase creativity and innovation which we believe is the key to meeting aggressive sustainability targets.

The buildings sector offers a significant opportunity for moving to a low-carbon economy. Emissions from residential, commercial and institutional buildings account for almost 30 percent of energy use in Canada and almost 25 percent of Canada's greenhouse gas emissions. In Canada's urban centres, buildings are reported to be responsible for about half of all emissions.

Today, there exist many barriers to innovation. How projects are defined, how consultants are selected, and the relationships with clients all radically shape the potential outcome.

The federal government is showing leadership and needs to do more. As Canada's single largest owner of buildings and a major lessor, it has a central role in setting the highest standards of excellence and environmental sustainability.

Within the 26 federal departments and agencies that are custodians of buildings, there is an inconsistent commitment and application of sustainable goals.

The procurement of services has a significant impact on the successful achievement of project objectives and innovation.

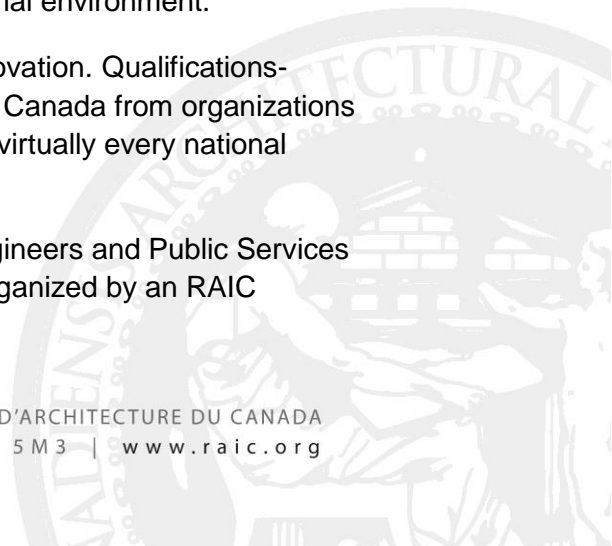
While federal procurement varies, it often leads to a lowest-fee approach which stifles innovation.

Additionally, placing intermediaries, such as buildings management service providers, to manage procurement and delivery can create barriers to realizing the full benefit that architects bring to a project.

The transfer of uninsurable risks to professionals is also a serious impediment to innovation because it creates a risk-averse and adversarial environment.

There is a better model that values quality, skill, and innovation. Qualifications-Based-Selection, known as QBS has growing support in Canada from organizations including the Federation of Canadian Municipalities and virtually every national professional services association.

Last month, the RAIC, the Association of Consulting Engineers and Public Services and Procurement Canada participated in a workshop, organized by an RAIC



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member, on the value of QBS. The outcome of that workshop was to begin discussing a pilot project to explore the benefits of QBS on several PSPC projects.

You've heard from CaGBC that 20 to 40 percent of available energy savings is within existing building stock. We strongly support targeted retrofits that contribute to a strong economy, preserve neighbourhoods and protect heritage.

LEED, Living Building Challenge standards, and benchmarking frameworks are effective in improving the performance of new and existing buildings. They are, however, voluntary in most jurisdictions and therefore are used in a small percentage of buildings.

The overhaul and mandatory implementation of the National Building Code and the National Energy Code ultimately needs to be the objective.

Our goal is to work with the federal government to foster innovation and generate the cultural shift to a low-carbon economy, and a holistic understanding of sustainability goals.

Key Recommendations

The federal government can take the lead in aligning procurement practices such as:

- Move to QBS process with pilot program
- Re-evaluate 3rd party procurement services
- Share risk equitably among team members

Adopt collaborative project delivery methods where owners, builders, and designers share common goals and project risks.

Show leadership by setting high sustainable standards through revised National Energy Code, benchmarking and higher harmonized standards for federal buildings.

Presented by Emmanuelle van Rutten, B.Arch, OAA, OAQ, MRAIC, LEED AP BD+C

