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CONSTRUCTION ECONOMIST

The Journal of the Canadian Institute of Quantity Surveyors
Le Journal de l'Institut canadien des économistes en construction

Canadian Institute of Quantity Surveyors | Institut canadien des économistes en construction

THE FUTURE OF CONSTRUCTION EFFICIENCY

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To promote the professional status of Institute members by establishing and maintaining high standards and ethics, and fostering excellence through education and the interchange of knowledge and partnership with industry stakeholders.

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Published by / Publié par
NAYLOR ASSOCIATION SOLUTIONS
1200 Portage Avenue, Suite 200
Winnipeg, MB R3G 0T5
T. 204-975-0415
F. 204-947-2047
www.naylor.com

Publisher Darryl Lazarenko
Content Mark Burridge
Layout Amit Kumar Singh

PUBLISHED MARCH 2026/CIQ-Q0126
Canadian Publication Mail Agreement #40064978
COVER IMAGE: ISTOCK.COM/KANAWATTH

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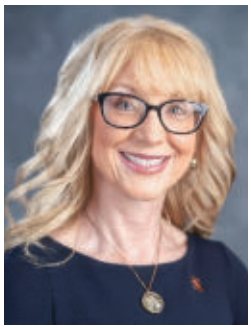
Why Adaptation is now a QS Imperative.

inside every issue



Value Proposition: Ambassadors for the Brand

Tammy Stockley, Professional Quantity Surveyor (Fellow)
Chair, CIQS/CIQS Board Director

In these challenging times marked by geopolitical uncertainty and trade barriers, Canadians continue to demonstrate leadership through kindness, collaboration, and compassion. Pursuing new trade agreements with European and Asian partners, while strengthening internal trade corridors across Canada, is increasingly critical to our economic resilience.

Public investment in infrastructure and housing is at historic levels. Federal, provincial, and municipal governments are committing billions toward transit, housing, water systems, roads, and net zero infrastructure. To ensure these investments deliver lasting value for taxpayers and communities, professional expertise in cost planning, risk management, and project governance is essential.

The CIQS upholds the highest standards of professional and ethical conduct among its members. Our National Standards and member licensing agreements reflect integrity, accountability, and expertise delivered by our Professional Quantity Surveyors (PQS) and Construction Estimator Certified (CEC) Members. Through proactive advocacy and ongoing engagement with policymakers at all levels of government, the CIQS demonstrates a collaborative path forward that reinforces the value of our brand and professional involvement.

The CIQS webinar on "Trade Wars: What Tariffs Mean for CIQS Members and Exploring Solutions" achieved one of our highest registration turnouts. This strong commitment demonstrates that trade-related challenges remain highly relevant and impactful for our members, a year after they were first implemented.

Call to Action

The CIQS is expanding its advocacy efforts beyond Ottawa. Through local government outreach and Provincial Engagement Days, our members can connect directly with provincial policymakers to share cost management expertise related to infrastructure and housing. These initiatives help ensure that provinces and municipalities, which deliver a large share of public works, are aware of our professional services and can effectively leverage quantity surveying expertise.

CIQS participation in the Canadian Association of Municipal Administrators tradeshow provides opportunities for members to engage in advocacy initiatives and promote the profession. By educating procurement officials and project stakeholders, we demonstrate how our members deliver measurable value and maximize returns on public investment.

The CIQS is the voice for Canada's Construction Economists. By sharing insights, participating in advocacy initiatives, and serving on advisory committees, members help advance the profession while strengthening and promoting the best practice competencies and expertise we offer.

Why Governments Should Engage CIQS Members

When Members are engaged early in public sector projects, directly rather than as a subconsultant to a prime, they serve as critical cost stewards, delivering strong financial returns on public dollars and more effective project outcomes.

We understand the full value and breadth of services we contribute as trusted assets to public projects. At every level of government, accountability can be strengthened and CIQS members are uniquely positioned to support this by:

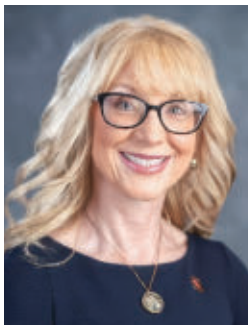
- Developing robust cost estimates to inform capital planning
- Facilitating transparent analysis to support infrastructure funding decisions
- Advising on procurement evaluation criteria to maximize value and encourage completive bids
- Providing accurate cost forecasting and benchmarking
- Managing lifecycle costs
- Identifying and mitigating risk
- Ensuring realistic budgets and financial feasibility during project planning

Governments face growing pressure to deliver public infrastructure that is cost effective, sustainable, and delivered on time.

Seize the opportunity to become involved as a CIQS Ambassador. The role offers meaningful professional development, expanded networks, and the chance to actively support and advance our profession. ■

Tammy Stockley, PQS(F), MRICS, GSC, AET

Tammy began her career in Quantity Surveying in 1992 after graduating from Architectural Engineering Technology in St. John's NL. Her professional career roles evolved from cost planner, cost consultant, senior cost consultant, associate, associate director, and to director in her current employment position.



Proposition de valeur : ambassadeurs de marque

Tammy Stockley, Économiste en construction agréé « Fellow »
Présidente de l'ICÉC/membre du conseil d'administration de l'ICÉC

En ces temps difficiles marqués par l'incertitude géopolitique et les barrières commerciales, les Canadiens et Canadiennes continuent de faire preuve de dynamisme à travers leur bienveillance, leur esprit de collaboration et leur compassion. La conclusion de nouveaux accords commerciaux avec des partenaires européens et asiatiques, de même que le renforcement des corridors commerciaux intérieurs à l'échelle du Canada, devient de plus en plus essentielle à notre résilience économique.

Les investissements publics dans les infrastructures et le logement atteignent des niveaux historiques. Les gouvernements fédéral, provinciaux et municipaux investissent des milliards de dollars dans les transports en commun, le logement, les réseaux d'eau, les routes et les infrastructures de carboneutralité. Pour que ces investissements puissent avoir une valeur durable pour les contribuables et les communautés, ils doivent disposer d'une expertise professionnelle en matière de planification des coûts, de gestion des risques et de gouvernance des projets.

L'ICÉC veille à ce que ses membres respectent les normes les plus élevées en matière de conduite professionnelle et de déontologie. Nos Normes nationales et les accords de licence de nos membres reflètent l'intégrité, la responsabilité et l'expertise de nos membres économistes en construction agréés (ÉCA) et estimateurs en construction certifiés (ECC). Par un plaidoyer proactif et à une mobilisation continue des décideurs politiques à tous les ordres de gouvernement, l'ICÉC démontre une voie collaborative qui renforce la valeur de notre marque et de notre engagement professionnel.

Le webinaire de l'ICÉC sur « Les guerres commerciales : l'impact des tarifs douaniers pour les membres du ICÉC et les solutions à explorer » a enregistré l'un de nos taux d'inscription les plus élevés. Cet engagement fort démontre que cette question commerciale reste extrêmement pertinente et qu'elle a une incidence sur nos membres, un an après sa mise en œuvre.

Appel à l'action

L'ICÉC élargit ses efforts de plaidoyer au-delà d'Ottawa. Grâce à la sensibilisation des collectivités locales et aux journées de mobilisation provinciale, nos membres peuvent entrer directement en contact avec les décideurs au niveau provincial pour partager leur expertise en matière de gestion des coûts liés à l'infrastructure et au logement. Ces initiatives permettent de s'assurer que les provinces et les municipalités, qui réalisent une grande partie des travaux publics, connaissent nos services professionnels et qu'elles peuvent tirer parti de l'expertise en économie en construction.

La participation de l'ICÉC au salon de l'Association canadienne des administrateurs municipaux permet aux membres de s'engager dans des initiatives de défense de plaidoyer et de promouvoir la profession. En éduquant les responsables des marchés publics et les parties prenantes des projets, nous montrons comment nos membres apportent une valeur mesurable et maximisent le retour sur investissement public.

L'ICÉC est le porte-parole des économistes en construction au Canada. En partageant leurs idées, en participant à des initiatives de plaidoyer et en siégeant à des comités de consultation, les membres contribuent à faire progresser la profession tout en renforçant et en promouvant les compétences et l'expertise que nous offrons en matière de bonnes pratiques.

Pourquoi les gouvernements devraient-ils embaucher des membres de l'ICÉC ?

Lorsque les membres sont mobilisés dès les premières étapes des projets du secteur public, et ce, à titre de conseillers directs plutôt qu'en sous-traitance auprès d'un consultant principal, ils jouent un rôle essentiel dans la gestion des coûts, assurant une forte rentabilité financière pour les fonds publics et des résultats de projet plus efficaces.

Nous comprenons toute la valeur et l'étendue des services que nous apportons en tant qu'atout de confiance aux projets publics. La responsabilité peut être renforcée à tous les niveaux du gouvernement. Les membres de l'ICÉC sont particulièrement bien placés pour soutenir cette démarche à travers les actions suivantes :

- Élaboration d'estimations de coûts fiables pour étayer la planification des investissements ;
- Facilitation d'une analyse transparente pour soutenir les décisions de financement des infrastructures ;

Suite à la page 27

The Power of Our Network: Collaboration as Competitive Advantage

Sheila Lennon, CAE
Chief Executive Officer, CIQS

As the voice for Canada's construction economists, we understand that the role of quantity surveyors grows evermore critical, and complex, due to rapid technological advancement, shifting construction markets, and unprecedented infrastructure investments across Canada. The power of a CIQS membership is our network which, when properly cultivated and leveraged — through event participation, certification, and engagement on chapter and national committees — distinguishes exceptional practices from merely keeping pace within the profession.

The Evolving Construction Landscape

- Fewer interprovincial trade barriers, changing building codes, updated construction methods.
- Major Projects Office, Buy Canadian Policy, significant government investment in infrastructure projects and renewable energy.
- Fickle tariff rules and volatile trade dynamics affecting material cost, creating unprecedented estimating and forecasting challenges.
- Government regulatory changes around carbon accounting, green building standards, Artificial Intelligence-driven cost databases, and blockchain-based contract management.

The construction industry is experiencing transformative changes that demand continuous professional adaptation. Isolation is not a viable option for the quantity surveyor looking to adapt to these new complexities. Building a professional network where knowledge-sharing is recommended and promoted, experiences are shared openly, and collective wisdom promotes shared success for everyone, gains them a competitive advantage in the profession.

As CIQS members continue to learn from each other through participation at Institute events and webinars, or by engaging as committee members or Ambassadors, Members position themselves where they can contribute their own expertise while learning from others.

For example, when major industrial projects introduce novel procurement models or contact structures, professionals who engage with their peers can gain deeper insight on similar projects by learning from others. Such knowledge-sharing becomes exponentially more valuable as GenAI drives changes to the parameters and expectation of construction economics on what seems like a daily basis. Individuals connected to active professional networks — such as the CIQS — benefit from shared experiences and collaborative problem-solving to help them serve their clients or employers more effectively.

Professional Development as a Strategic Imperative

Maintaining a technical certification such as the Professional Quantity Surveyor (PQS) or Construction Estimator Certified (CEC) builds a strong foundation for staying current on industry changes and challenges, policy updates, and to be an active participant in the broader community of construction economists.

Take the Federal government's "Buy Canadian Policy" as an example. It was introduced "to protect, build, and transform Canadian industries." Those who actively engage with the professional network accessed with a CIQS membership can connect with colleagues from across the country, and learn from their experiences as the industry navigates the new procurement frameworks and learns how to prioritize the procurement of Canadian materials, supplies and content on federal projects, while maintaining the bottom line.

Building the Network Effect

The strength of our association stems from the quality and engagement of our network. The CIQS brings together industry professionals from diverse areas of the profession, such as institutional, industrial, residential, infrastructure, government, and academia. It spans geographic regions across the globe, offering members the opportunity to learn about market conditions, regulatory approaches and practice innovations both internationally and across Canada.

Building effective networks requires a commitment from not just individuals, but employers; they need to view association involvement as core professional infrastructure instead of an extracurricular activity. Firms that allocate time for their staff to participate on Institute committees, attend conferences and

Continued on page 19

<< Le pouvoir de notre réseau: la collaboration comme avantage concurrentiel >>

Sheila Lennon, ÉCA
Directrice générale, ICÉC

En tant que porte-parole des économistes en construction au Canada, nous savons que le rôle des économistes en construction devient de plus en plus essentiel et complexe sous l'effet de l'évolution rapide des technologies, des mutations des marchés de la construction et des investissements sans précédent dans les infrastructures au sein du Canada. La valeur de l'adhésion à l'ICÉC tient avant tout à la force de notre réseau. Lorsqu'il est entretenu et pleinement mis à profit par la participation aux événements, l'obtention de certifications et la mobilisation au sein des comités des chapitres et des instances nationales, ce réseau permet de distinguer les pratiques d'excellence de celles qui se limitent à suivre le rythme de la profession.

L'évolution du Paysage de la Construction

- Réduction des barrières commerciales interprovinciales, modification des codes du bâtiment, modernisation des méthodes de construction ;
- Bureau des grands projets, politique « Achetez canadien », investissements publics importants dans les projets d'infrastructure et les énergies renouvelables ;
- Des règles tarifaires inconstantes et une dynamique commerciale volatile affectant le coût des matériaux, ce qui crée des défis sans précédent en matière d'estimation et de prévision ;
- Changements réglementaires gouvernementaux touchant la comptabilisation du carbone, les normes de construction écologique, les bases de données de coûts fondées sur l'intelligence artificielle et la gestion des contrats reposant sur la technologie de la chaîne de blocs.

Le secteur de la construction connaît des transformations profondes qui exigent une adaptation professionnelle continue. L'isolement n'est pas une option viable pour l'économiste en construction souhaitant s'adapter à ces nouvelles complexités. La construction d'un réseau professionnel où le partage des connaissances est encouragé et valorisé, où les expériences sont partagées ouvertement et où l'intelligence collective favorise la réussite de toutes et tous constitue un avantage concurrentiel au sein de la profession.

À mesure que les membres de l'ICÉC poursuivent leur apprentissage mutuel en participant aux événements et aux webinaires de l'Institut ou en s'engageant en tant que membres de comités ou ambassadeurs, les membres se placent dans une position qui leur permet à la fois de contribuer par leur propre expertise et d'apprendre des autres.

Par exemple, lorsque de grands projets industriels introduisent de nouveaux modèles d'approvisionnement ou de nouvelles structures contractuelles, les professionnels qui communiquent avec leurs pairs peuvent acquérir une connaissance plus approfondie de projets similaires en tirant parti de l'expérience d'autrui. Ce partage des connaissances gagne une valeur exponentielle à mesure que l'IA générative modifie, presque quotidiennement, les paramètres et les attentes en matière d'économie de la construction. Les personnes raccordées à des réseaux professionnels actifs, comme celui de l'ICÉC, bénéficient d'expériences partagées et d'une résolution collaborative des problèmes, ce qui leur permet de mieux servir leurs clients et leurs employeurs.

Le Développement Professionnel comme Impératif Stratégique

Le maintien d'une certification technique telle qu'économiste en construction agréé (ÉCA) ou estimateur en construction certifié (ECC) constitue une base solide pour rester à jour quant aux évolutions et aux enjeux du secteur et aux mises à jour des politiques, tout en permettant une participation active à la communauté plus large des économistes en construction.

À titre d'exemple, la politique fédérale « Achetez canadien » a été mise en place afin de « protéger, bâtir et transformer les industries stratégiques canadiennes ». Les personnes qui s'impliquent activement dans le réseau professionnel accessible par une adhésion à l'ICÉC peuvent entrer en contact avec des collègues de l'ensemble du pays et apprendre de leurs expériences, alors que le secteur s'adapte aux nouveaux cadres d'approvisionnement et apprend à prioriser l'approvisionnement en matériaux, fournitures et contenu canadiens pour les projets fédéraux, tout en maintenant la rentabilité.

Suite à la page 19

REFRAMING CONSTRUCTION PRODUCTIVITY: A LIFECYCLE PERSPECTIVE AND THE LEADERSHIP ROLE OF THE QUANTITY SURVEYING PROFESSION

By Janaka Ruwanpura, PQS, Ph.D., P.Eng., FCAE, MRICS, NAC

For decades, construction productivity has been discussed as a site-level problem, often framed around labour efficiency, supervision, or trade performance. While these factors matter, this narrow lens obscures a more fundamental truth: productivity outcomes on site are largely shaped by decisions made long before construction begins.

The construction industry does not suffer from a lack of effort or commitment. Instead, productivity challenges persist because projects are conceived, structured, and delivered within fragmented systems that dilute accountability, misalign incentives, and defer critical decisions until it is too late. Improving productivity therefore requires a systemic, lifecycle-based approach, rather than isolated fixes at the execution stage.

From this perspective, productivity is not a single issue, it is the cumulative outcome of how projects are led, planned, procured, managed, and resourced. Five interconnected domains consistently emerge as the dominant drivers of productivity performance across projects.

1. Vision, Leadership, and Project Alignment

Productivity begins with clarity.

Projects that lack a clearly articulated and consistently communicated vision tend to fragment quickly. Owners, designers, contractors, and trade partners may each pursue rational objectives, but when those objectives are not aligned, inefficiency becomes inevitable.

Unclear success criteria, inconsistent leadership, and weak continuity from concept to completion result in assumptions replacing intent. These misalignments rarely remain abstract; they materialize as scope disputes, rework, design drift, and lost momentum on site.

Productivity thrives when leadership is continuous, accountability is explicit, and the project's purpose, beyond cost and schedule, is understood at every level of the delivery chain.

2. Planning, Design, and Procurement Readiness

Many productivity losses attributed to "site issues" are in fact symptoms of insufficient front-end readiness.

Incomplete or ambiguous design documentation, unrealistic schedules, inadequate constructability reviews, and rushed procurement processes transfer uncertainty directly into construction. When design intent is unclear or untested, field teams are forced to interpret, adapt, and redesign under time pressure, an inherently inefficient process.

Similarly, procurement decisions that prioritize speed or lowest price over capability and readiness often compromise execution quality. Productivity improves when projects enter construction with mature designs, validated budgets, realistic timelines, and delivery teams selected through transparent, value-based processes.

3. Contracting and Commercial Structures

Contracts are not neutral instruments; they shape behaviour.

Commercial arrangements that overemphasize risk transfer, discourage collaboration, or delay payment inevitably push teams into defensive modes of operation. In such environments, effort shifts away from productive work toward claims management, contingency protection, and commercial positioning.

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Conversely, clear scope definition, fair risk allocation, timely payment mechanisms, and performance-aligned incentives foster cooperation and shared problem-solving. Productivity improves when contracts reinforce, not undermine, the behaviours required for efficient delivery.

4. Construction Execution and Site Management

Execution matters, but it does not operate in isolation.

Even well-planned projects can lose productivity through poor coordination, delayed information flow, ineffective supervision, or weak integration of materials, equipment, and digital tools. Site productivity depends on maintaining workflow, minimizing interruptions, and enabling timely decision-making.

Effective site management integrates planning, coordination, quality control, logistics, and technology into a coherent operating system. When these elements function together, non-productive time is reduced and performance variability narrows.

5. Workforce, Skills, and Human Performance

Construction productivity is ultimately delivered by people.

Worker performance is influenced not only by skill and experience, but also by morale, fatigue, communication quality, and working conditions. Persistent labour shortages, limited mentorship pipelines, and compressed schedules place additional strain on the workforce.

Importantly, site teams are often asked to compensate for upstream deficiencies, late designs, unclear scope, unrealistic timelines, which erodes morale and pride in workmanship. Productivity improves when the workforce is supported through proper planning, stable resourcing, clear communication, and sustained investment in skills development.

The Leadership Role of the Quantity Surveying Profession on Productivity

Against this backdrop, the Quantity Surveying profession is uniquely positioned to lead a more effective productivity agenda.

Quantity Surveyors operate at the intersection of cost, scope, risk, value, and governance, across the full project lifecycle. Unlike discipline-specific roles, QSs possess the systems perspective required to connect early decisions with downstream outcomes. Following are the strategic contributions of the QS profession to enhance productivity.

1. **Lifecycle Cost Leadership**
   QSs can reframe project decisions around whole-life value rather than lowest initial cost, aligning capital investment with operational performance and productivity outcomes.
2. **Front-End Readiness and Risk Intelligence**
   Through early cost planning, risk analysis, and constructability-informed estimating, QSs help ensure projects are realistically scoped and financially viable before commitments are made.
3. **Commercial Alignment and Fair Risk Allocation**
   QSs play a critical role in shaping contracts, evaluating risk transfer, and advising on procurement strategies that balance accountability with collaboration.
4. **Performance Measurement and Transparency**
   By establishing clear cost and productivity benchmarks, QSs enable evidence-based decision-making throughout execution, rather than retrospective analysis after problems occur.
5. **Advocacy and Workforce Development**
   As trusted advisors to clients and policymakers, QSs can champion investments in training, streamlined approvals, and workforce development, addressing structural constraints that suppress productivity across the industry.

A Call to Leadership

Improving construction productivity does not require revolutionary tools or technologies. It requires clarity of purpose, disciplined planning, aligned incentives, competent management, and a supported workforce, applied consistently across the project lifecycle.

The Quantity Surveying profession has both the mandate and the capability to lead this shift. By advocating for systemic reform, elevating lifecycle thinking, and guiding projects toward better-aligned decisions, QSs can help move the productivity conversation from blame to solutions.

The CIQS continues to advocate for strategic policy reforms and investments aimed at boosting labour productivity in construction, including streamlining approval processes and investing in training programs to address skilled labor shortages. The Institute could also play a vital role in advancing this agenda, through policy advocacy, professional leadership, and a continued commitment to strengthening the foundations of productive, sustainable construction.

The path to higher productivity is not found solely on site. It is built, deliberately and collaboratively, long before the first shovel breaks ground. ■

Janaka Ruwanpura *is a Professor of Project Management at the Schulich School of Engineering, University of Calgary, where he has served as Vice-Provost and Associate Vice-President Research (International) for 11 years and Canada Research Chair in Project Management Systems for 6 years. He is a Fellow of the Canadian Academy of Engineering and the US Academy of Construction. His expertise includes risk management, simulation analysis, productivity improvement and global engagement.*

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COMPLACENCY KILLS: WHY ADAPTATION IS NOW A QS IMPERATIVE

By Brandon Roy, BA, CEC, GSC

"Complacency kills…" We've all heard that saying before. Or its close cousin: *"It's always been done this way."* Both reflect the same truth — if you stagnate in business, you fail. This can apply to entrepreneurs (60+% of small businesses fail within 5 years) or major corporations (remember Blackberry at the height of the smartphone revolution), and to teams within companies, especially in industries that typically resist change.

Every January we all look at the past year and make our new year's resolutions. A resolution to improve ourselves, build habits that lead to success, and set a direction for the year ahead. But personal resolutions only go so far — our workplaces need that same level of reflection and intentional improvement. As professionals, we need to be continuously growing and improving our skills (think CIQS CPD) as well as adapting to ever changing economic conditions.

This year my team and I took that idea to the micro level. We spent a couple days reviewing our previous year and, more specifically, our recent project closings. We looked not only at what went well but also at the misses or near misses.

We dug into the details of our closing methodology. Did we give the team enough time to understand each other's projects to ensure that they could perform competently on the day of closing? Did we vet the trades that were pricing to ensure we were confident in the numbers we were receiving? Was our closing sheet structured clearly enough to avoid gaps or misunderstandings?

The results were mixed. We performed well in many areas and saw strong outcomes. So why change anything? Because even with success, we identified technical issues that created opportunities

for mistakes. These stemmed from a new system we introduced — one that made sense conceptually but proved cumbersome on larger projects

And that's okay. We tested something new, measured the results, and adapted. That's the scientific method in action. It's also how we avoid complacency: by continually experimenting, reviewing, and refining.

We are in a prime position going into 2026 to embrace change and adapt to the changing economic landscape. The global economy is shifting; we are seeing tensions rising between once amicable trading partners and new trade partnerships forming. This has required our industry to shift and adapt to the changes, identifying new market solutions, new material suppliers, and being cognizant of the impact of these changes on our current and future projects, amicable trading partners and new trade partnerships forming. This has required our industry to shift and adapt to the changes, identifying new market solutions, new material suppliers, and being cognizant of the impact of these changes on our current and future projects.

As Quantity Surveyors and Construction Estimator Certified professionals, we are ideally positioned to provide the necessary guidance and professional aptitude to help the Canadian construction market succeed in the current market — as long as we don't get complacent — and adapt to the changes.

We need to explore new markets, products, and methodologies. We need to implement and utilize emerging technologies. We need to test, measure, and adapt based on the results. We mustn't be afraid to try something new and potentially fail; not everything we try will ultimately succeed. However, we must be willing to try and to approach all of this with the sound, evidence-backed decision making that has made the QS profession a mainstay in construction industries the world over. Adaptation isn't just internal housekeeping — it directly strengthens the accuracy, predictability, and value of the advice we provide to clients, who rely on us to navigate uncertainty with confidence.-backed decision making that has made the QS profession a mainstay in construction industries the world over.

Our profession has never been more essential, and those who embrace change will shape the future of Canada's construction landscape. ■

Brandon Roy *is a Senior Estimator with a general contractor in Ontario. He has a diverse portfolio spanning all sectors of construction in commercial, design-build industrial, institutional, Long-Term Care and Multi Family Residential. Brandon holds a Bachelor of Arts, History degree with a minor in Classical Military Tactics from Wilfrid Laurier University and a Construction Estimator Certificate from Conestoga College.*

TORONTO UNDERWATER TRANSMISSION PROJECT

By Shane McKernan, PQS, GSC, B.Tech

Project: Toronto Third Line Underwater Transmission Project

Location: Submerged route in Lake Ontario, near Bowmanville/Clarington area, to downtown and eastern Toronto, Ontario

Owner/Developer(s): Province of Ontario, through the Ministry of Energy and Mines; Independent Electricity System Operator (IESO) as system planner & procurement lead

Delivery/Procurement: Competitive transmission procurement led by IESO, design-build partner not yet selected

Stats:

- Capacity
  - ❍ Up to 900 megawatts (MW) of additional transmission capacity into Toronto
- Cost
  - ❍ Latest estimated capital cost: $1.5 billion
- Schedule
  - ❍ Development, construction, and commissioning expected to take roughly 7–10 years from approval, with a target in-service date around 2034–2037
- Notes
  - ❍ First high voltage underwater transmission line in Ontario's history
  - ❍ Designed to deliver enough power to support roughly 285,000–900,000 new homes and major job creating commercial growth in Toronto
  - ❍ Directly taps Ontario's expanding nuclear and clean generation fleet at Darlington, including refurbished units and future small modular reactors
  - ❍ Improves reliability and resilience by diversifying supply paths and hardening the grid against extreme weather, floods, and ice storms
  - ❍ Frees up scarce urban land by shifting a major transmission corridor offshore, reducing

Image 1: Proposed underwater transmission line:

conflicts with housing, transit, and other critical infrastructure

- Procured through Ontario's first IESO led competitive transmission process, intended to lower lifecycle cost and attract specialized underwater cable expertise
- Builds on established Canadian experience with submarine lines in Atlantic Canada, while representing Ontario's first domestic "home grown" high voltage underwater network asset

Ontario is advancing a first-of-its-kind high-voltage underwater transmission line that will connect the Darlington Nuclear Generating Station area to downtown and eastern Toronto via Lake Ontario, significantly increasing capacity and resilience for the province's largest load centre.

The Toronto Third Line Underwater Transmission Project stems from the IESO's regional planning work, which concluded that existing corridors into Toronto cannot accommodate forecast growth in housing, transit, and commercial development. Without new supply paths, the city would face constraints on major investments and electrification, undermining economic competitiveness and climate goals. The line is designed to bring up to 900 MW of additional clean power from the Darlington hub, where Ontario is investing heavily in refurbished reactors and future small modular reactors. This provides both firm capacity and operational flexibility while keeping system emissions relatively low.

Conceptually, the project consists of a high-voltage cable system installed on or beneath the bed of Lake Ontario between the Darlington area and landing points serving downtown and eastern Toronto. Using an underwater route avoids the land-use conflicts and visual impacts of new overhead lines in a dense urban region. The cable will be engineered to withstand long-term immersion, lakebed conditions, and seasonal lake dynamics, drawing on experience from other Canadian submarine links in Atlantic Canada. Once in service, the line will diversify bulk supply paths into Toronto and reduce reliance on a limited set of existing overhead corridors that are more exposed to storm-related risks.

Ontario has directed the IESO to use a competitive transmission procurement to select the proponent responsible for design, financing, construction, and operation of the asset under regulated arrangements. This is Ontario's first large transmission project to follow such a competitive route and is expected to attract specialized underwater cable and major-project expertise. Environmental approvals will focus on lakebed disturbance, aquatic habitat, shoreline interfaces, and coordination with existing infrastructure, with Indigenous and municipal engagement forming a key part of the process. Overall, development, construction, and commissioning are expected to span roughly 7–10 years, targeting an in-service date in the mid-2030s to align with Toronto's rapid load growth and housing objectives. ■

Photo Sources:

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Smart Growth Through Diversification: A New Fiscal Blueprint for Canadian Construction

Congress 2026 Charlottetown

The CIQS is getting ready to host Congress in Charlottetown, Prince Edward Island from June 4-6. Join us at the Delta Prince Edward where industry professionals will share their knowledge on topics such construction law, artificial intelligence, leadership, and construction contracts, to name a few.

Charlottetown, the birthplace of Confederation, is hailed as a foodie haven, a cultural capital, and a favourite coastal hangout. With the city's laid back atmosphere, central location, and a plethora of delicious dining spots, it's no wonder this seaside destination shines.

Friday, June 5, 2026	
Presentation Title	**Speaker(s)**
Beyond the Contract: Unpacking Human Behaviour That Shapes Collaborative Delivery and Infrastructure Outcomes	Dr. Diana Nada, *Turner & Townsend* Rob Pattison, *Rob Pattison Consulting*
Best Practices in Quantity Surveying and Estimating	Nicholas Charlton, *Gordian*
From Vision to Action: Leadership Driving DEI + R	Rian Johnson-Bourque, *Turner & Townsend* Tammy Stockley, *Altus Group* Acacia Ashick, *Pomerleau* Dr. Diana Nada, *Turner & Townsend*
AI and Construction Law: Building Risk Intelligence from Contract to Courtroom	Diana Massawa, *Saily Strategic Solutions* Maarukh Abbas, *Saily Strategic Solutions*
AI Won't Revolutionize Construction: Why Hype Falls Short	Artur Terechtchouk, *Superset*

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Did You Know?

- PEI boasts the the highest concentration of lighthouses in North America, with about 1 lighthouse every 55 kilometres.

- Lobster season happens twice a year. The Spring season from May-June and the Fall season from mid-August to mid-October.
- No matter where you are, the nearest beach is a maximum of 15 minutes by car.

Learn more about the Congress Program, speakers, registration fees, host city, sponsorship opportunities, and accommodations at www.ciqs.org/congress

Saturday, June 6, 2026	
Presentation Title	**Speaker(s)**
Choosing Project Procurement and Delivery Methods to Match Culturally Diverse Teams	John Dowse, *Individual #Critical Friend*
Design Management in Canadian Construction Contracts: Best Practices and Common Pitfalls	Niamh Ni Chroinin, *Saor Consulting* Seán Hollywood, *Hollywood & Associates* Ryan Hendricks, *Turner & Townsend* Jorgen Kvist, *Canadian Construction Association*
Envelope Economics: How Codes, Costs, and Constructability Shape Performance	Meena Hamati, *STACK Construction Technologies* Saleem Lawand, *Lawand Super Expert*
Navigating the Funding Gap: Cost Intelligence and Strategic Planning for Public Capital Projects	Amit Sharma, *Saily Strategic Solutions* Cameron Young, *National Arts Centre*
Alliance Contract and Quantity Surveying in Canada	James Jatau, *Altus Group*

Don't forget! Last day to register and book your accommodations is May 8, 2026. Contact Kelsey at congress@ciqs.org if you have any questions.

What's New and Returning for Congress 2026

NEW

This year we have introduced and additional ticketed event on Friday, June 5, 2026. Attendees will experience a true taste of PEI participating in a Kitchen Party. An East Coast Kitchen Party is a traditional, casual, and lively Atlantic Canadian social gathering where friends and family crowd into a kitchen for, or around, food, drinks, and impromptu music. While we won't be in anyone's kitchen, we welcome you to join us at Fisherman's Wharf Lobster Suppers, home of the 60 ft salad bar, for an authentic lobster dinner and great music!

Fisherman's Wharf Lobster Suppers

Tickets available as an add-on to registration for $100 plus tax.

RETURNING

Housing, Infrastructure and Communities Canada (HICC) is scheduled to return for a highly anticipated Keynote Presentation.

Looking to update your headshot? The Headshot Studio makes its return and will be available both main session days.
Further information regarding sign-up will be released within the event app.

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THE GOOD, THE BAD, AND THE COSTLY:

EXPERT CONSTRUCTION ECONOMICS SUPPORT WILL HELP CANADA BUILD SMARTER

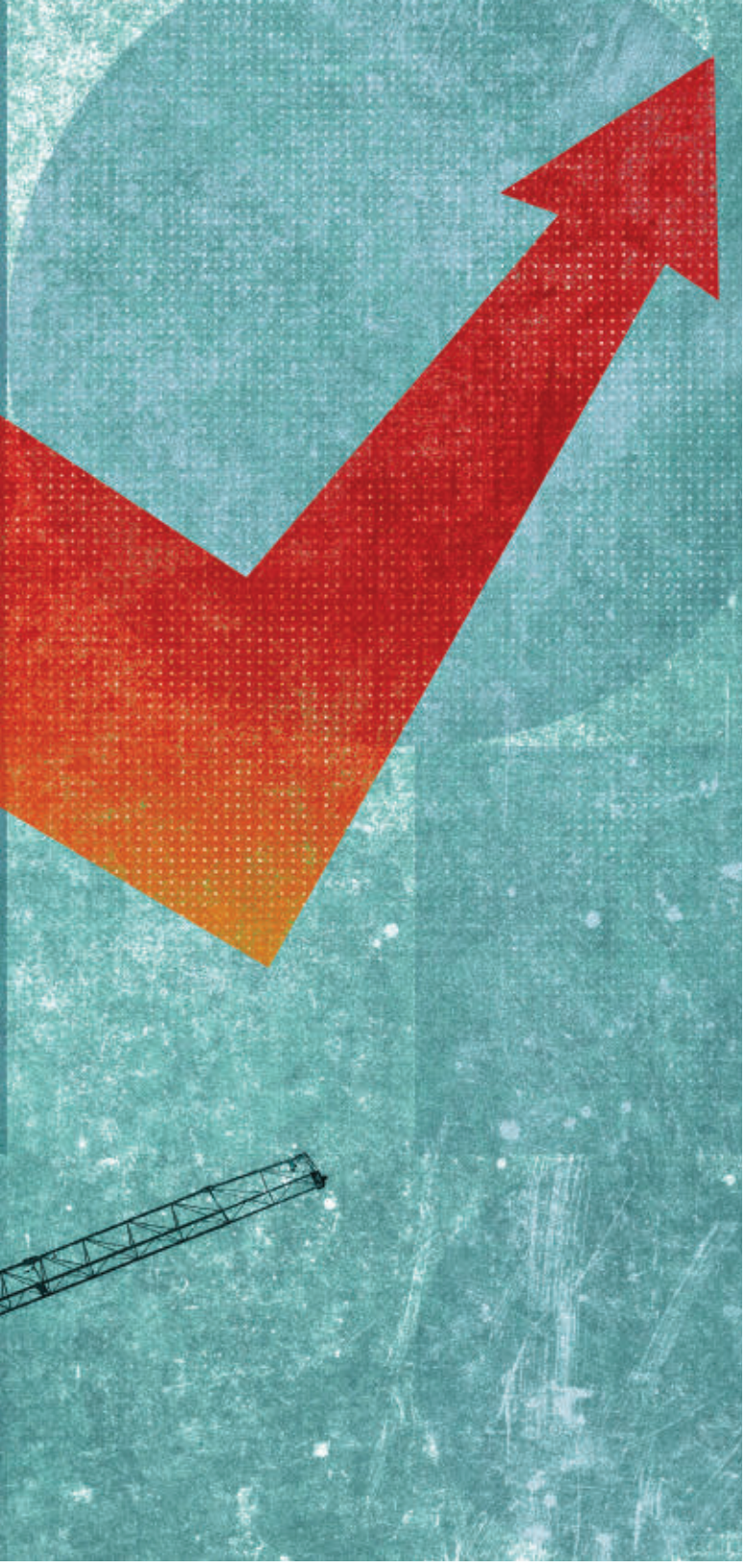
By Lydia Houck, Senior Advisor, First Lake Solutions

ISTOCK.COM/MAMMUTH

Canada is navigating an unpredictable global landscape. Trade volatility, supply chain disruption, and shifting geopolitical dynamics are forcing governments to rethink how they plan, fund, and deliver programs. In particular, infrastructure is being positioned as a tool to increase domestic economic capacity, competitiveness, and long-term stability in Canada.

This moment is significant. As governments expand the scale and scope of public investment, disciplined, evidence-based cost and feasibility insights are more important than ever.

Initiatives like the Buy Canadian procurement program, the National Infrastructure Assessment and trade-enabling infrastructure investments point to a deliberate, nationally coordinated approach to growth. They also signal rising expectations for what public infrastructure must deliver, not just in terms of outcomes, but also credibility, value for money, and execution. The challenge is whether these



ambitions can be delivered at speed and scale in a market that is constrained by labour availability, price volatility, and procurement risk.

Policies to accelerate housing supply, strengthen domestic sourcing, and expand trade infrastructure carry cost and risk implications that must be addressed early and monitored regularly. Choices around project scope, procurement, and timing are directly shaped by market conditions.

This is where CIQS members' expertise matters most. Use of cost intelligence before budgets are finalized, procurement paths are set, and public expectations established, is essential. The public requires clearer articulation of trade-offs, so feasibility remains aligned with policy goals.

- National initiatives like Build Canada Homes, Build Communities Strong, and the Major Projects Office will require governments to think beyond individual projects toward program-level sequencing, prioritization, and trade-off management.
- The National Infrastructure Assessment will achieve its intended impact only if its findings translate into executable priorities grounded in realistic assumptions about cost, capacity, and market response.
- Buy Canadian initiatives must balance local considerations and value for money to ensure efficient life-cycle planning and project delivery on time and on budget.

PQSs and CECs play a central role in navigating these trade-offs. Closer collaboration between governments and construction economists is **essential** to ensuring infrastructure investments deliver on their promise.

For governments, this means embedding construction economists into program design, procurement frameworks, and project governance, treating their expertise as a strategic input rather than a downstream check. For CIQS members, this means articulating how realistic costing, benchmarking, and lifecycle thinking enable better decision-making and reduce avoidable risk.

Canada's infrastructure challenge is no longer about **whether** to invest; it is about **how** to deliver on investments in a constrained and volatile system. At this scale and complexity, construction economics is not optional. It is essential to ensuring public infrastructure dollars deliver lasting value for Canadians.

The CIQS is advancing this momentum to ensure construction economics is at the heart of Canada's infrastructure agenda. In the coming months, the Institute will submit recommendations, engage with federal officials, and contribute to policy discussions in Ottawa to show how the expertise of its members drives smarter, more resilient infrastructure from coast to coast to coast. ■

Lydia Houck *is a Senior Advisor with First Lake Solutions, where she helps clients advance solutions to complex policy challenges through strategic, research-driven advocacy. She hails from Nova Scotia, where she spent several years as the Executive Director of the largest non-profit association by membership in Atlantic Canada. Prior to her current role, she served as a policy advisor to Canada's Minister of Housing, Infrastructure and Communities. Lydia holds a Master of Political Management from Carleton University.*

PROMPT PAYMENT AND ADJUDICATION IN ONTARIO: A MORE DISCIPLINED FRAMEWORK TAKES HOLD

By Sahil Shoor, Partner, Gowling WLG

Ontario's prompt payment and adjudication regime is no longer a developing experiment. It is now embedded in day-to-day project administration, with practical consequences for owners, contractors, and subcontractors alike. Two elements of the current framework are proving especially consequential: the treatment of proper invoices and the expanded role of adjudication. Together, they reinforce a system that rewards procedural discipline and early dispute engagement.

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Proper Invoices: Timing and Process Matter More Than Ever

The prompt payment regime continues to turn on the concept of a "proper invoice," but the margin for administrative flexibility has narrowed. Invoice recipients have seven days to deliver written notice identifying deficiencies and specifying what is required to remedy them. If that deadline is missed, the invoice is deemed to be a proper invoice, and statutory payment timelines are triggered.

This is a significant shift in risk. Informal feedback, partial responses, or internal delays no longer protect the recipient's position. Silence has consequences.

The definition of a proper invoice also now includes information reasonably required by the owner's accounts payable system. This balances competing interests. Owners are entitled to insist on information genuinely needed to process payment, but those requirements must be reasonable and consistently applied. Ad hoc or opaque demands are unlikely to withstand scrutiny.

For owners and upper-tier contractors, this places a premium on clear, documented invoice requirements and reliable internal review processes. For contractors and subcontractors, it reinforces the importance of submitting complete, well-structured invoices that anticipate payor system needs. The regime does not favour one side over another, but it does penalise inattention.

Adjudication: Broader Scope, Greater Practical Impact

Ontario's adjudication framework has evolved beyond a narrow focus on payment disputes. Parties now have greater flexibility and a wider range of issues that can be addressed on an interim basis.

The ability to appoint private adjudicators, subject to ODACC qualification standards, allows parties to select decision-makers with appropriate technical or commercial expertise. While this can improve efficiency and decision quality, it also requires early agreement on fees and process, which should not be overlooked.

More importantly, the scope of adjudicable issues has expanded.

Adjudicators may now determine matters reasonably necessary to resolve the dispute before them, including disputes over scope of work, changes in contract price, and extensions of time. This reflects a recognition that payment disputes are often symptoms of broader contractual disagreements.

Procedural clarity has also improved. Parties may raise jurisdictional objections where appropriate, and there is a defined window to correct errors or oversights in a determination. Adjudication remains an interim process, but it is a more robust and reliable one.

The timeframe to commence adjudication has also been extended to 90 days following completion or abandonment, aligning more closely with lien timelines and reducing pressure to lien solely as a protective measure.

A System Built on Discipline

For owners, the regime demands consistency, timely invoice review, and realistic internal requirements. For contractors and subcontractors, it rewards compliance, documentation, and early use of adjudication where disputes affect cash flow or progress. For all participants, the message is clear: Ontario's framework prioritises process and early resolution. Those who adapt accordingly will find it predictable. Those who do not may find that delay now carries a price. ■

***Sahil Shoor** is a partner in Gowling WLG's Disputes practice, with a focused construction and infrastructure practice that sits at the intersection of disputes and project delivery. He acts as litigation counsel in high-value, technically complex construction and infrastructure disputes and as project counsel to owners, developers, contractors, and consultants on risk allocation, contract strategy, and claims management throughout the project lifecycle, with a particular emphasis on positioning projects and disputes to succeed across claims, adjudication, arbitration, and enforcement. He maintains a national practice focused on the sectors that underpin Canada's built environment, including commercial construction, real estate development, infrastructure and civil works, power and energy, and major public-private partnership and transit projects. He helps clients make early, defensible decisions that shape outcomes before disputes crystallize and, when claims do arise, advances and defends them through the full range of project dispute resolution mechanisms.*

THE POWER OF…

Continued from page 6

chapter meetings, gain a competitive edge as professionals who actively engage with the association, acquiring knowledge that translates from abstract theory into practical experience.

The Collaborative Imperative

As the voice for Canada's construction economists, we affirm that our collective strength emerges from individual contribution. The power of our network is the power we build together, one shared insight, one collaborative project, one professional relationship at a time. In an industry defined by change, this collaborative foundation may be our most sustainable competitive advantage. ■

LE POUVOIR DE…

Suite de la page 7

Bâtir l'effet Réseau

La force de notre association repose sur la qualité et la mobilisation de son réseau. L'ICÉC réunit des professionnels provenant de divers secteurs de la profession, notamment les secteurs institutionnel, industriel, résidentiel, des infrastructures, gouvernemental et universitaire. L'ICÉC couvre des régions géographiques du monde entier, offrant aux membres l'occasion de s'informer sur les conditions du marché, les approches réglementaires et les innovations en matière de pratiques, tant à l'international qu'au Canada.

La mise en place de réseaux efficaces nécessite un engagement non seulement de la part des individus, mais aussi des employeurs, qui doivent considérer la participation à l'association comme une infrastructure professionnelle essentielle plutôt que comme une activité périphérique. Les entreprises qui accordent à leur personnel du temps pour participer aux comités de l'Institut ou pour assister aux conférences et aux réunions des chapitres acquièrent un avantage concurrentiel, car les professionnels qui s'investissent activement auprès de l'association obtiennent des connaissances qui se traduisent concrètement, passant de la théorie à la pratique.

L'impératif de la Collaboration

En tant que porte-parole des économistes en construction du Canada, nous affirmons que notre force collective découle de la contribution individuelle. La valeur de notre réseau est celle que nous bâtissons ensemble, à travers chaque partage de connaissances, chaque projet collaboratif et chaque relation professionnelle. Dans un secteur défini par le changement, cette base collaborative pourrait bien constituer notre avantage concurrentiel le plus durable. ■

HOW TO BUILD AND OPERATE A SMALL ISP NETWORK: INFRASTRUCTURE, EQUIPMENT, AND SUPPORT

By Sharib Maradukhel, PQS, MRICS, CET

Launching a small ISP (Internet Service Provider) requires a meticulous balance of engineering and customer-centric operations. Our analysis focuses on three core components that form the backbone of a successful deployment: designing a resilient network infrastructure, choosing the right hardware products, and establishing reliable network services with unwavering technical support.

1. Drawing the Blueprint: Your Network's Foundation

Think of your network infrastructure as the roadmap for your entire operation. A well-designed plan from the start determines your coverage, service quality, and how easily you can expand in the future. It all boils down to two main parts: the high-speed highways (the backbone) and the local streets that connect to homes (the access network).

The High-Speed Highways: Your Backbone Network

This is the core pipeline that carries massive amounts of data and connects your users to the global internet. For a small ISP, you have a couple of smart options:

- **Fiber Optic Backbone:** The gold standard. It uses light to transmit data, offering incredible speed and reliability. It's perfect for dense urban or business areas. A great tip for small ISPs is to lease existing "dark fiber" from larger providers instead of laying your own cable — a huge cost saver.
- **Wireless Backbone:** Ideal for rugged terrain or areas where digging is too expensive. Technologies like microwave or satellite links can be set up faster and for less money upfront, though they generally can't match fiber's ultimate speed and capacity.

The Last Mile: Connecting Your Customers

This is the final leg of the journey, getting the internet from your backbone to the user's door. The choice here often depends on the geography and your budget.

- **FTTH (Fiber to the Home):** The dream for speed lovers. You run a fiber optic cable directly to each home or office, delivering top-tier performance and reliability. It's a bigger initial investment but is unbeatable for satisfying heavy-demand areas.
- **FTTB (Fiber to the Building) + Ethernet:** A very practical compromise for apartments and office buildings. You run fiber to the building's basement or communications room and then use Ethernet cables to connect individual units. It's more cost-effective than FTTH while still offering great speeds.
- **Wireless Access (4G/5G, Wi-Fi):** Your best friend in rural or hard-to-wire locations. By setting up base stations, you can cover a wide area without trenching cables. Fixed Wireless Access (FWA) is a popular and affordable way to get started.

Setting Up Shop: Your Points of Presence (POPs)

A POP is a local connection point that bridges your backbone and your customers. Strategically placing these in central locations or local data centers is key. The goal is to keep the path from your user to the internet as short as possible for a snappy experience. It's also wise to build in redundancy here, so if one POP has an issue, traffic can be rerouted to keep everyone online.

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Plugging into the World: Upstream Connections

To give your customers the full internet, you need to connect to larger networks. This means establishing relationships with big telecom providers or connecting to Internet Exchange Points (IXPs). Most small ISPs start by leasing bandwidth through these larger gateways to get their customers connected globally.

2. The Right Gear: Choosing Your Hardware

Building a reliable network is like building a house — you need a strong foundation and quality materials. The hardware you choose directly impacts your network's stability and speed.

The Brain and Nervous System: Core Devices

These are the heavy lifters at the heart of your network.

- **Core Routers:** The network's central brain. They direct massive data streams between your backbone and local access points. Look for a robust, high-performance router that won't buckle under pressure.
- **Edge Routers & Switches:** The crucial links to your customers. Edge routers need to be versatile and fast to avoid bottlenecks, while switches act like neighborhood traffic directors, efficiently sending data to the right local user.

The Information Superhighway: Fiber Optic Gear For FTTH, you'll need specialized equipment.

- **OLT (Optical Line Terminal):** The command center for your fiber network, located in your central office. It takes in high-speed data and distributes it to all your users.
- **ONU/ONT (Optical Network Unit/ Terminal):** The small box at the customer's home. It translates the light signals from the fiber into a standard internet connection for their router.
- **Fiber Jumpers & Modules:** The essential cables and connectors. Don't cut corners here — high-quality components minimize signal loss and ensure a stable connection.

Cutting the Cord: Wireless Solutions

For wireless services, you'll need:

- **Wireless Base Stations:** These are the towers or small cells that broadcast the signal to your subscribers.
- **Wireless CPE:** The antenna unit the customer gets. It locks onto your signal and provides an Ethernet connection for their home network.

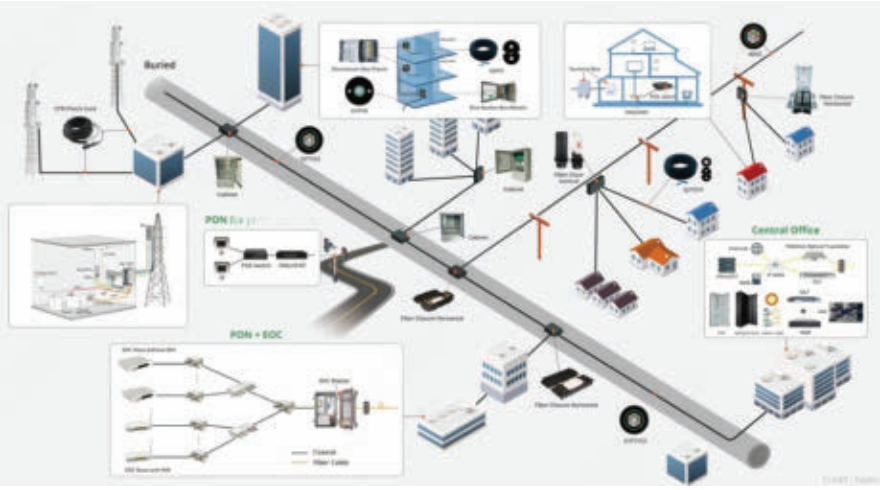
The Final Touch: Customer Equipment

This is what your customers interact with daily.

- **For Home Users:** A modern Wi-Fi router or gateway is key. To ensure they get the speeds you're providing, offer devices that support the latest standards like Wi-Fi 6.
- **For Businesses:** They need pro-grade gear. Look for routers that can handle multiple internet lines for backup, include built-in VPNs, and offer advanced security features.

3. Network Services and Technical Support

Running an Internet Service Provider (ISP) successfully depends not only on infrastructure and network design but also on reliable support systems and well-structured services. These ensure network stability, quick issue resolution, and a better experience for end users.



IP Address Management and Allocation

ISPs are responsible for distributing IP addresses. To do this, they typically apply for an Autonomous System Number (ASN) and request IPv4 and IPv6 address blocks from regional internet registries such as APNIC. Tools like IP Address Management (IPAM) systems are commonly used to automate address assignment, maintain records, and simplify overall address tracking.

Network Monitoring and Administration

To maintain network health, ISPs deploy monitoring platforms such as Zabbix, Nagios, or SolarWinds. These tools allow administrators to track device status and data flows in real time. Protocols like SNMP are useful for identifying potential failures early and addressing them before they escalate.

For deeper insight, technologies like NetFlow provide traffic analysis, helping ISPs pinpoint high-demand applications, detect bottlenecks, and optimize routing to improve efficiency. Smaller providers can especially benefit from this data to fine-tune performance.

Customer Support and Technical Assistance

Round-the-clock customer service is critical for user satisfaction. ISPs usually provide multiple support channels, including phone, email, live chat, and on-site assistance, so that customers can resolve connectivity problems quickly and conveniently.

Fault Management and Recovery

Effective fault-handling strategies involve creating rapid-response procedures and backup solutions to minimize downtime during equipment or service failures. Keeping spare hardware and maintaining contingency plans ensures services are restored swiftly in case of unexpected outages.

Conclusion:

The above content provides a preliminary discussion on the three key areas of building a small ISP network: network infrastructure design, equipment and hardware products, and network services and technical support. ■

With over 18 years of experience and a solid background in Electrical Engineering (BEng, MSc), ***Sharib Maradukhel*** *is an Associate Director at Altus, specializing in cost planning and management for various sectors, including institutional, data centers, and large transit projects. Certified (MRICS, PQS, GSC, CET), Sharib has a proven track record in cost control, project delivery, and change management throughout the project lifecycle, focusing on value-driven solutions and project success from concept to completion.*

KEY CHANGES TO THE CONSTRUCTION MANAGEMENT MODEL IN CCDC-5B

By Alex Valova, BA (Hon.), LLB, LLM

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Construction management contracts have increased in popularity in Canada, particularly on more complex projects. They are based on the principles that underpin the Construction Manager at Risk project delivery method, which is meant to allow for more efficient, cost effective and collaborative approach between owners and contractors.

Although parties are free to create their own construction management contracts to suit their needs, a commonly used form of this type of contract comes from the Canadian Construction Documents Committee based in Ottawa. The CCDC-5B Construction Management Contract for Services and Construction has been around for over a decade and was updated in 2025. While the changes range from payment obligations, safety and expanded limitation of liability provisions, there are noteworthy changes with respect to pre-construction and construction services, schedules and owner's rights to terminate the agreement.

Pre-Construction and Construction Services

Arguably one of the cornerstones of construction management contracts is the involvement of the construction manager from the design phase. This is particularly important when an owner has a design idea in mind but is looking to the expertise of the construction manager to develop that idea into a tenable and constructible design. The appeal is obvious for the construction manager to be involved in the design phase. However, this intended collaborative approach

can break down quickly if the contractual terms between the parties are ambiguous, which can lead to costly disputes. The CCDC 5B-2025 contract has introduced new terms which differentiate between pre-construction services, contained in Schedule A1, that can include services at the pre-design phase and construction services set out in Schedule B. Construction services include various items such as changes, tracking project risks, schedules and dealing with cost controls.

These changes are valuable since having an ambiguous scope of work at either phase of the project generally hurts all parties involved. Scope of work sections in contracts are sometimes treated as an afterthought or a "given" especially if the parties engaged in a tender process prior to signing the contract, but nothing can be further from the truth. Taking the time to ensure that a contract has an accurate, complete and comprehensive scope of work at the outset of any project is an important part of its future success as issues and disputes can arise rather quickly.

Schedules

The new CCDC 5B sets out two types of schedules: 1) the project schedule and 2) the construction schedule. The project schedule is initially provided by the Owner and includes key project milestones. The construction schedule on the other hand must be prepared and delivered by the construction manager to the owner prior to the first application for payment. The construction schedule becomes a key aspect of the project and the construction services provided by the construction manager are expected to align with it.

A newly introduced Article 1-1.4 allows the parties to agree on a target date for ready-for-takeover, which further highlights the spirit of collaboration that this contract model expects from the parties. Schedules are of particular focus in disputes where delays are alleged. These changes arguably give owners more confidence and certainty but may place additional pressures and resources on construction managers to ensure that construction schedules are prepared and carried out properly. It is critical for construction managers to ensure that they have the appropriate scheduling experts who work closely with the team carrying out the construction work in order to have a successful project.

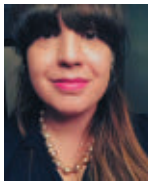
Owner's Termination Rights

GC 7.1.8 is a new section which allows an owner to terminate the agreement if the owner is unable or unwilling to proceed with either the pre-construction or construction services. Termination during the pre-construction services means that the owner will pay a break fee in addition to any work performed. Unsurprisingly, things get more complicated if the termination occurs during the construction phase, when an owner has to pay "such other direct damages" its construction manager may have incurred which includes "reasonable loss of profit."

While owners do not usually take termination rights lightly given the time and expense to build complex projects, there may be circumstances where taking such steps are appropriate. Even so, parties can expect to the need to turn to experts when it comes to any disputes related to what direct damages are sought, and whether they are proper, as well as with respect to calculating reasonable loss of profit, which can be a contentious exercise that exposes a construction manager to providing commercially sensitive information that they otherwise prefer not to share.

Parting Thoughts

These important changes will benefit owners and construction managers alike. Even so, it is prudent for parties to always consider their specific project and unique circumstances. It can be easy to have a false sense of comfort when working from precedents, so it is always worth considering whether the new and improved CCDC-5B may benefit from further tailoring in order to avoid expensive headaches down the line. ■



***Alex Valova** is a lawyer at Stieber Berlach LLP. She has experience dealing with complex construction disputes across Canada and the United States. In addition to her time in private practice, Alex spent several years working in-house for a large Toronto based construction company. Alex has also worked on the owner side on a new major transit project in Toronto.*

GRID DECARBONIZATION ACROSS CANADA — STRATEGY FOR BUILDING OWNERS

By Ayo Daniel Abiola, P.Eng, PQS, CDP

It's been noted that buildings can only meaningfully decarbonize if the grid supplying their energy is clean. In practice however, the emissions benefit of electrification of buildings is correlated with its grid emissions intensity, and Canada's electricity mix is uneven across provinces. Nationally, Canada's electricity is already comparatively low-emitting, with ~80% non-GHG emitting generation.

For capital planning, the key implication is that owners should avoid binary decisions ("electrify now" vs. "wait") and instead adopt a pathway that is robust under multiple scenarios — accounting for equipment end-of-life timing, regulatory milestones, grid constraints, and expected grid decarbonization. Federal policy direction is explicit: the Clean Electricity Regulations (finalized December 2024) limit electricity-sector emissions with an intensity standard of 65 t/GWh beginning in 2035 and reaching net-zero by 2050, supporting a transition consistent with Canada's economy-wide net-zero target[1].

Financial and Operational Benefits of Early Action

Building policies are shifting from voluntary programs to mandatory reporting and performance limits. Vancouver's program establishes clear compliance timing: reporting is phased in for existing large commercial buildings, and from 2026, certain large office and retail buildings must meet GHG intensity limits. Toronto has implemented mandatory reporting through a by-law effective January 1, 2024, with buildings ≥4,645 m² reporting since July 2024 and buildings ≥929 m² required to report from July 2025. The city is developing Building Emissions Performance Standards, with a proposed by-law expected to be presented to Council in 2027.

At the national level, the National Energy Code of Canada for Buildings (NECB) 2025 introduces energy efficiency requirements for alterations to existing buildings and expands its environmental objective to address greenhouse gas emissions, providing a harmonized framework jurisdictions may adopt and enforce. For QSs, these signals increase the value of early baseline assessment and compliance-aligned capital planning — particularly before major renewal scopes trigger additional requirements.

Building elements like MEP systems and envelope are long-life assets. "Like-for-like" fossil replacements at end-of-life can lock in operational emissions and increase exposure to future policy tightening and retrofit disruption. Electrification — or electrification-ready design — can improve optionality: as grids decarbonize, operational emissions may decline over time without another major replacement event. From a QS perspective, this should be evaluated through lifecycle cost, risk, and sequencing, not simple payback. Where immediate electrification is constrained (capacity, service upgrades, timing), design strategies that reduce future change costs (space allocation, electrical provisions, distribution planning) can help avoid stranded capital[1].

Deep energy efficiency measures (envelope, airtightness, windows, lighting, controls, commissioning) reduce energy demand regardless of the carbon intensity of supplied electricity. For QS-led cost planning, the additional value is that load reduction can decrease future equipment sizing and associated electrical upgrades, improving feasibility and reducing installed cost. Efficiency-first sequencing can also reduce heat pump capacity and improve performance, lowering total project risk.

Transition Risk and Asset Value

Market participants increasingly treat emissions performance as part of transition risk (financing, leasing, due diligence). A widely used framework is CRREM (Carbon Risk Real Estate Monitor), which provides science-based decarbonization pathways and can identify when a building's emissions intensity exceeds a pathway — often described as "stranding" risk.

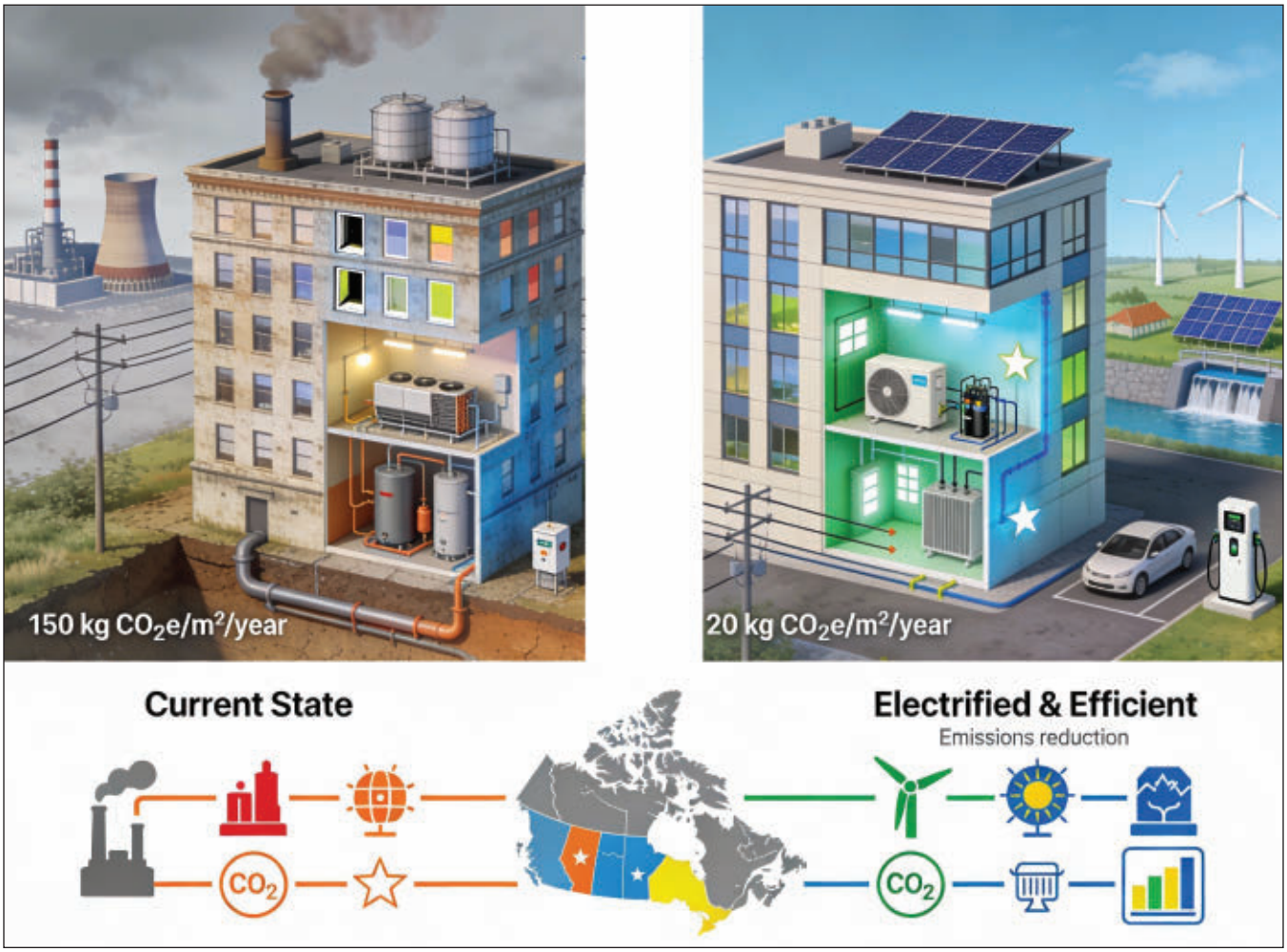


Illustration: *Transition from inefficient or high-intensity state to a highly efficient state through electrification and a decarbonized energy source.*

While reported "green premia" and "brown discounts" vary by asset class, geography, and methodology, evidence syntheses consistently identify statistically significant relationships between sustainability attributes and outcomes such as rents, values, and leasing performance — though the ranges are not uniform and should not be assumed without market-specific data. For QSs and clients, the practical takeaway is to treat decarbonization as both an operating cost issue and a liquidity/refinancing risk issue, especially for institutional portfolios and assets exposed to tightening disclosure requirements.

Consider Phased Action

Earlier action does not mean immediate comprehensive retrofit in all cases. A phased approach is often the most prudent pathway when grounded in constraints and intervention points:

- **Grid or connection constraints:** Some projects face service upgrade limitations, capacity restrictions, or multi-year utility lead times. In these circumstances, proceeding with envelope and "no-regret" efficiency while sequencing electrification to feasible interconnection timelines reduces risk and preserves momentum. Federal policy emphasizes maintaining reliability while transitioning the sector, reinforcing the practical need for staged implementation[1].
- **Planned capital works:** Where a building has redevelopment, major renewal, or program upgrades within 2–5 years, bundling decarbonization within that scope can reduce mobilization costs and avoid rework.
- **Capital constraints:** Where upfront funding is limited, define a pathway that starts with operational optimization and targeted efficiency, then aligns major mechanical interventions to end-of-life replacement. The key distinction is between sequenced implementation with defined milestones and indefinite delay with unbounded compliance and value risk.

A Qs-led Decision Framework

A practical approach should be repeatable and compatible with cost planning and procurement:

Step 1 — Establish the baseline: Quantify current energy use and emissions; document envelope condition; assess mechanical remaining useful life; identify near-term capital obligations; and compile available benchmarking/reporting data.

Step 2 — Identify no-regret measures: Prioritize measures with benefits across scenarios: recommissioning, controls optimization, targeted envelope improvements, heat recovery opportunities, and demand reduction strategies that reduce required system sizes.

Step 3 — Model scenarios (cost + carbon + compliance): Develop options such as:

(a) efficiency-first with electrification at end-of-life.
(b) partial electrification/hybrid interim strategies.
(c) electrification-ready design pending capacity upgrades.

Tie each scenario to regulatory milestones (reporting and performance limits where applicable) and expected grid decarbonization pathways.

Step 4 — Integrate lifecycle cost with transition and compliance risk: Evaluate CAPEX, OPEX, renewal timing, and potential compliance/penalty exposure. Where relevant, incorporate transition risk benchmarking using recognized tools (e.g., CRREM pathways), especially for assets subject to institutional due diligence.

Step 5 — Build a sequenced capital plan: Align interventions to equipment end-of-life, planned alterations, utility timelines, and procurement capacity. Use the plan to avoid stranded cost (e.g., replacing a system likely to be superseded within a short interval) and to support financing, approvals, and tender strategy.

Conclusion

Grid carbon intensity affects near-term emissions outcomes, but it does not negate the value of action. Canada's electricity is already predominantly non-GHG emitting nationally, and federal regulations are designed to reduce electricity-sector emissions further on a pathway to net-zero by 2050. Concurrently, municipalities are establishing reporting and performance milestones, and national codes are strengthening requirements affecting alterations to existing buildings.

For most owners, the lowest-risk approach is a sequenced pathway: implement no-regret efficiency measures now, coordinate major mechanical electrification with end-of-life cycles and feasible electrical upgrades, and use integrated carbon-cost analysis to align capital planning with compliance timelines and long-term asset value protection.

"This article provides general guidance only and does not constitute legal, financial or engineering advice."

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Suite de la page 5

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