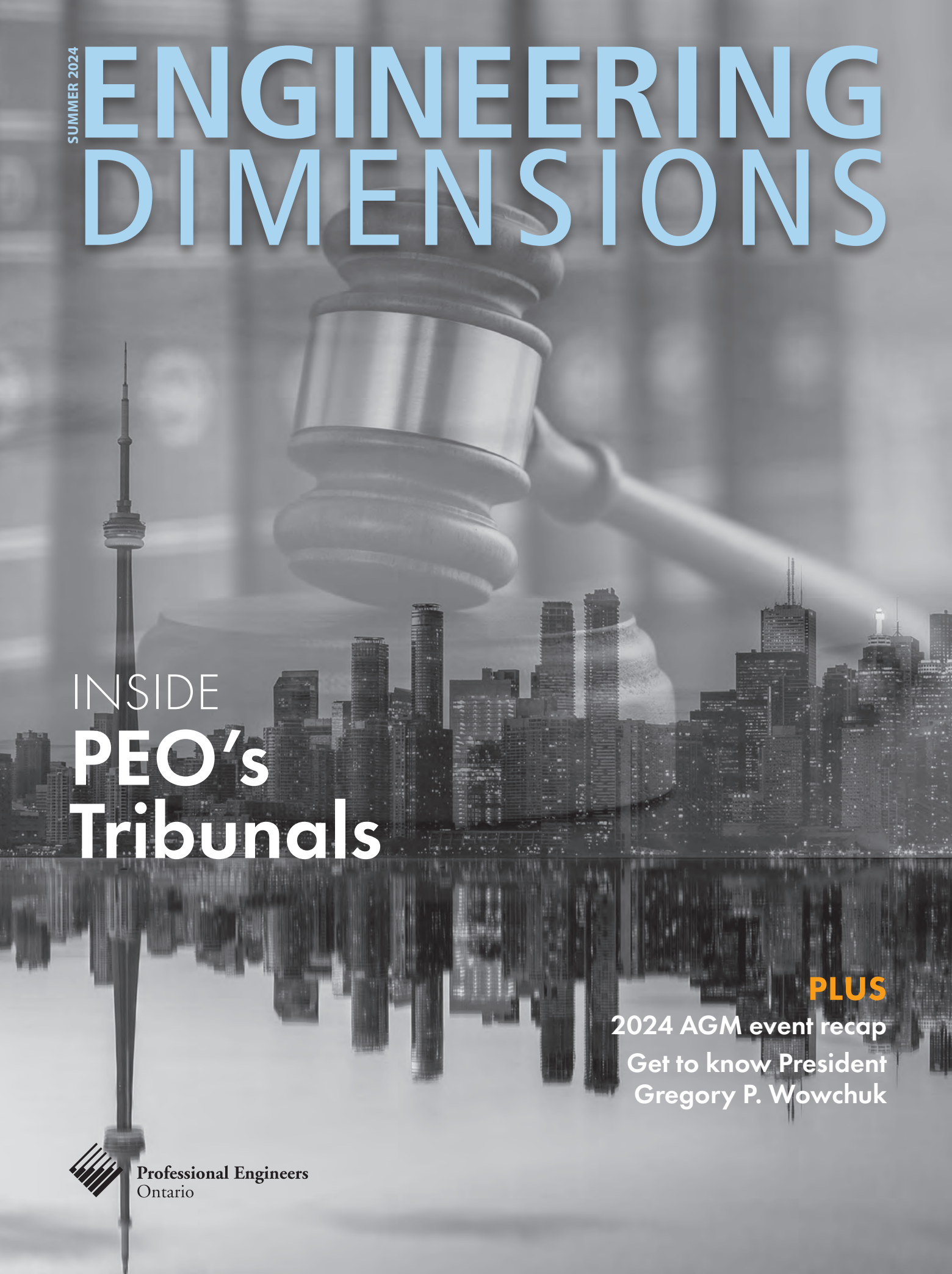
SUMMER 2024

ENGINEERING DIMENSIONS



INSIDE
PEO's Tribunals

PLUS

2024 AGM event recap

Get to know President Gregory P. Wowchuk

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[1] Statistics Canada, "Survey of Household Spending in Canada," 2022.
[2] ctvnews.ca, "How much money does it take to raise a child in Canada?" July 2022.
[3] clhia.ca, "A guide to disability insurance," 2021.
[4] Canadian Cancer Society, "Cancer Statistics at a Glance," 2023.

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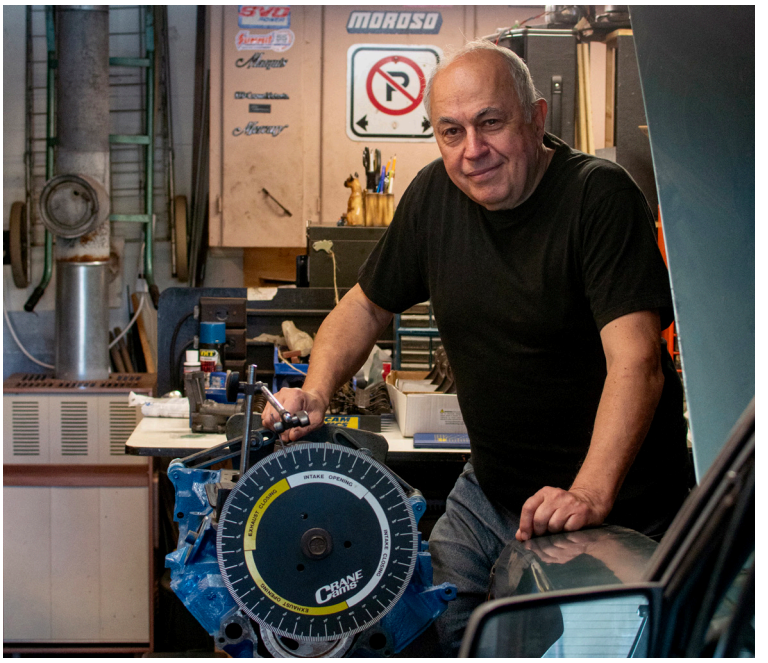

SECTIONS

WHAT DO YOU THINK?

Send your letter to the editor to **editor@peo.on.ca**. Published letters may be edited for length and clarity.

ENGINEERING DIMENSIONS

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Engineering Dimensions (ISSN 0227-5147) is published quarterly by Professional Engineers Ontario and is distributed to all PEO licence holders.

Approximately $5 from each membership fee is allocated to *Engineering Dimensions* and is non-deductible.

Alliance for Audited Media

Mandates, Motions and Misconduct

By Nicole Axworthy

It's not every day that PEO's staff and volunteers are acknowledged for their work in protecting the public. But a peek inside our complex tribunals system—which includes Discipline, Fees Mediation and Registration committees and a complaints review councillor—shows the critical roles they play in helping to fulfill PEO's mandate.

Take the Discipline Committee (DIC), for example. PEO's official disciplinary authority per the *Professional Engineers Act*, the DIC holds hearings to determine allegations of professional misconduct or incompetence against a licence or certificate of authorization holder. This judicial role requires specially trained volunteers, lawyers and a small but mighty team of staffers to maintain an efficient and transparent system akin to a court of law just for engineers. Protecting the public can sometimes mean the DIC must penalize a practitioner who has been found guilty, including revoking or suspending their licence, limiting their work or requiring that they demonstrate engineering knowledge through specific technical exams.

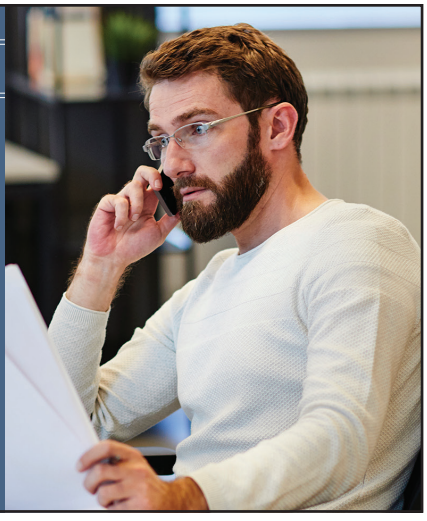
Surely, this is a heavy burden to bear, but one that ensures PEO is regulating effectively and that practitioners who come before the DIC are provided fair procedure. In "Reaching a Verdict: The Rise and Relevance of PEO's Tribunals" (p. 30), we introduce you to the work of the DIC and other tribunals and discuss how the team is working to enhance and streamline their operations—because, as with every project or process, there's always room for improvement.

This issue, we also introduce you to new PEO President Gregory P. Wowchuk, P.Eng., FEC, whose practical nature and political experience likely sets him apart from those who came before. During our photoshoot for this issue's president profile, Wowchuk had us in awe of his knowledge of classic cars and engineering history. In "Shifting Gears, Finding Solutions" (p. 34), you'll get to know Wowchuk personally, his journey to becoming president and his fulsome agenda to move PEO forward. "We are here to ensure excellence in the practice of professional engineering. Nothing more, nothing less," Wowchuk says.

We also share a recap of PEO's 2024 Annual General Meeting in Barrie, ON (p. 8), and introduce you to all Council members for the 2024–2025 term (p. 40). And on page 13, you'll find news about the simplified nomination process to the highly esteemed Order of Honour, which recognizes engineers who have volunteered their time to PEO. Incidentally, the 2025 call for nominations for these awards can be found on page 18. Once you're up to date on the changes, please consider nominating a fellow PEO volunteer mentor, colleague or friend before the October 11 deadline. **e**

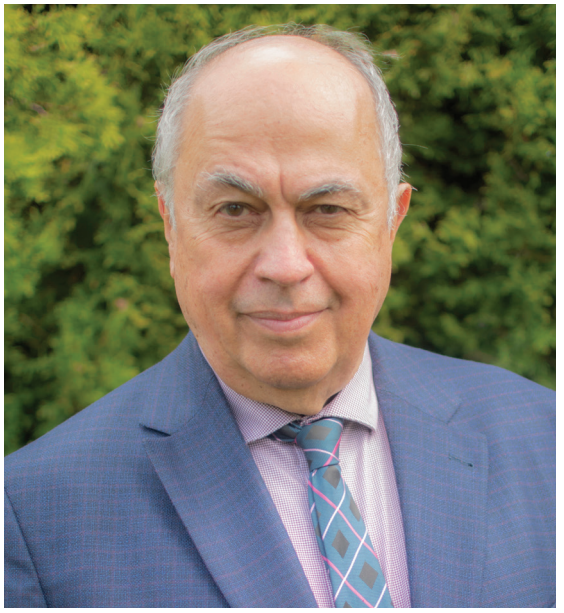
LET US KNOW

To protect the public, PEO investigates all complaints about unlicensed individuals or companies, and unprofessional, inadequate or incompetent engineers. If you have concerns about the work of an engineer, fill out a Complaint Form found on PEO's website and email it to **complaints@peo.on.ca**. If you suspect a person or company is practising engineering without a licence, contact PEO's enforcement hotline at 800-339-3716, ext. 1444, or by email at **enforcement@peo.on.ca**.



Professional Self-Regulation: A Gift…and an Obligation

By Gregory P. Wowchuk, P.Eng., FEC



My initial message to the PEO "family" must include a statement of my appreciation to all the members, volunteers and staff who make this profession work. They comprise a "three-legged stool"; without all three legs present, the stool could not stand. Those who serve in our 36 chapters and on committees and Council deserve special recognition. They give freely of their time, expertise and energy—without compensation. They work to ensure Ontario's engineers deliver the world's best to those who rely on us.

The professions in Ontario and the rest of Canada have been favoured with self-regulation and self-governance, a regulatory framework rare around the world. We are not a government department, nor are we governed by the public, nor are we a business corporation. In June 1922, the government of Ontario established a covenant with the province's engineers: Running the profession would be the exclusive domain of its members—with the condition that the public interest would be held paramount—and the government would stay at arm's length. The thinking at the time was that it was in the interest of the profession itself to license only those who qualify as professional engineers. In other words, the interests of the profession and those of the public could be served simultaneously. In the rare event where they did not, the public interest would prevail. This decision, in my opinion, showed that governments can occasionally make brilliant and visionary decisions, and the arrangement has worked superbly for over 10 decades.

THE PRINCIPLES OF SELF-REGULATION

In 1964, the Royal Commission Inquiry into Civil Rights, headed by Justice J.C. McRuer, was established, following the government's introduction of a very unpopular bill that proposed limiting civil rights in Ontario. McRuer's report was comprehensive, spanning more than 2200 pages and five volumes and was issued in stages, from 1968 to 1971.

Buried deep in one of these volumes were comments of particular interest to self-governed professions and their members. Chapter 75 of volume 3 begins by stating that licensing must consider the:

- Personal and public interests involved;
- Facets of licensing, granting, renewing, refusing, cancelling and suspending licences;
- Legislative definition of the purpose of any particular licensing requirements; and
- Legislative definition of standards to govern licensing decisions.

McRuer states that many principles of natural justice must be part of organizations that issue and administer licences, notably:

- Notice of refusal of licence, with reasons, and opportunity to be heard;
- Notice of revocation proceedings and burden of proof on revocations;
- Opportunity to achieve compliance;
- Tribunals to be subject to rules essentially identical to civil and criminal trials; and
- Right to appeal decisions by the licensing body.

In essence, the points listed above became the initial "constitution" of licensing bodies such as PEO. As long as the public interest was preserved and the regulator observed these criteria, the government would leave us to regulate as we ourselves felt appropriate. McRuer noted, however, that licensees had a large investment in their licences, and we are obligated to take their interests into consideration. He also warned about unnecessary and excessive burdens on licensees.

ADAPTING TO SOCIETY'S CHANGING NEEDS

PEO recently embarked on significant structural changes, which will allow us to better serve our members, prospective members and the public. The *Fair Access to Regulated Professions and Compulsory Trades Act* is having a significant impact on standardizing and expediting admissions. The separation of political and administrative functions mentioned by McRuer now are well established. Our licensing, enforcement and discipline mechanisms are being structured to accord fairness and justice to affected individuals.

Our society is encountering incredibly rapid change and increasing rates of change. Can regulators like PEO stay true to their "constitution" and yet prepare for this change and remain relevant and of value to their members, potential members, employers, government and society? Are we at PEO ready to engage with the dozens of "emerging disiplines" that technology is spawning? Stay tuned.

Developing PEO's Framework for Regulatory Excellence

By Jennifer Quaglietta, MBA, P.Eng., ICD.D

In April, PEO hosted its hybrid annual general meeting (AGM) in Barrie, ON (see p. 8). It was PEO's first AGM since 2019 to have an in-person component, and I was delighted to speak with volunteers and licence holders from PEO's 36 chapters, as well as reacquaint myself with outgoing, returning and incoming councillors, who will oversee PEO's governance during the 2024–2025 Council term. Our AGM also provided an important opportunity to remind us that we are halfway through our 2023–2025 Strategic Plan.

LAYING THE GROUNDWORK

Much like our last one, our current strategic plan aims to transform PEO into a modern, professional, right-touch regulator that puts the public interest first in all we do. Our change vision was informed by a 2019 external review that measured PEO's regulatory performance in three key areas: complaints, discipline, compliance and enforcement; licensing and registration; and professional standards and guidance. It revealed that PEO was falling short of meeting the standards of good regulation—a set of criteria against which regulatory performance can be assessed—and we needed a reset.

Several changes have been made since then that have brought us closer to achieving our goals:

- We strengthened and continue to strengthen our licensing and registration process by removing the Canadian experience requirement for applicants and speeding up and simplifying the application process;
- We are supporting licence and certificate of authorization holders in maintaining the standards required for competent practice through PEAK, our mandatory continuing professional development program;
- We are prioritizing the public interest by ensuring PEO's guidelines and standards reflect up-to-date practice and legislation;
- We have strengthened our approach to enforcing our legislation and have achieved some notable successes in curtailing the behaviour of those who engaged in unlicensed practice; and
- We are also doubling down on our equity, diversity and inclusion efforts to ensure all licensure applicants are treated fairly and equitably and every aspiring engineer can see a place for themselves in our profession.

Underpinning our change management initiatives has been a focus on optimizing our organizational performance through the development of a robust digital transformation strategy, increased stakeholder engagement and the implementation of a customer service model that strives to create a positive experience for every stakeholder that contacts PEO.

We have accomplished a lot and as a result we are closer than ever to meeting the standards of good regulation. I am eager to see us achieve our strategic plan objectives, but more than anything, I am inspired by the energy, determination and spirit that our transformation has awakened in our PEO staff and volunteers. While striving to become a "good" regulator, we have simultaneously put PEO on a course to achieve regulatory "excellence."

DEFINING REGULATORY EXCELLENCE

Not long before PEO was evaluating its regulatory performance against the Standards of Good Regulation, the Alberta Energy Regulator (AER) set out to define what was truly meant by phrases such as "best in class regulation" or "regulatory excellence." In 2014, AER's leaders determined that, to be the best, they first needed to establish a benchmark to measure their performance. Under the auspices of the Penn Program on Regulation at the University of Pennsylvania, they produced a framework that breaks down regulatory excellence into three core attributes:

- Utmost integrity (commitment to upholding the public interest);
- Empathic engagement (transparency and public engagement and how the regulator treats regulated entities); and
- Stellar competence (outcomes that maximize public value and a high level of public performance).

This framework provides a set of principles that all regulators can look to for inspiration. At PEO, we are in the early days of discussing these attributes as a staff team. The conversations so far have been enlightening and energizing. We all recognize the importance of meeting standards, but the possibility of exceeding standards and being a best-in-class regulator supplies us with an exciting and challenging new target. It is a target that we, with the support and leadership of Council, can achieve only through collaboration with stakeholders in a culture that puts people first, encourages learning and development and rewards innovation.

As we continue our journey of modernizing and enhancing PEO as a regulator, I am confident that regulatory excellence is at least within our reach, if not within our immediate grasp. e

PEO Hosts Its First Hybrid AGM

PEO's 2024 Annual General Meeting was the first to offer both in-person and virtual attendance options.

By Adam Sidsworth

PEO's annual general meeting (AGM) on April 20 was the regulator's first hybrid AGM, offering both virtual and in-person attendance options at Horseshoe Resort in Barrie, ON. Historically, PEO hosted its AGMs in person before going solely virtual from 2020 on due to the COVID-19 pandemic lockdowns. The 2024 AGM saw PEO's presidency transition from Roydon Fraser, PhD, P.Eng., FEC, to Gregory P. Wowchuk, P.Eng., FEC, as well as the swearing in of the 2024–2025 Council.

A LAND ACKNOWLEDGEMENT

Fraser, in his then-role as PEO president, opened the meeting with a land acknowledgment that also addressed the underrepresentation of Indigenous Peoples in engineering. "When I reflect on reconciliation and engineering, I cannot help but remember my school days in Regina, where, after Grade 8, my class composition changed dramatically," Fraser observed. "Where once about a quarter of my class were comprised of First Nations and Métis people, in Grade 9, it dropped to just two students, and by Grade 11 onwards, I had no First Nations or Métis classmates. When I look back, I realize just how critical support systems are to keeping students in school and for opening them up to opportunities they may not otherwise have…I wish to keep the doors to engineering or any other career open to all who wish to pursue their interests and dreams." Fraser's remarks echo the commitment of PEO to increase equity, diversity and inclusion (EDI) in its operations, including its licensing process. This includes a partnership with Indigenous Community Engagement to develop strategies to increase Indigenous representation among its licence holders.

ATTORNEY GENERAL ATTENDS AGM

A total of 349 people attended in person and virtually, including Attorney General Doug Downey, LLB, LLM, the provincial cabinet minister to whom PEO is responsible, who attended the AGM in person. Coincidently, the AGM was held in Downey's riding of Barrie-Springwater-Oro-Medonte. Downey expressed an interest in a continued working relationship with PEO's leadership, noting: "We brought some changes through [the *Less Red Tape, More Common Sense Act* last year, changing the [*Professional Engineers Act* (PEA)], which I'm sure you'll be talking about over the course of today." Those changes, which were passed by the legislature last year, allow PEO to introduce some administrative changes and improve its complaints process (see "PEA Amendments Simplify Complaints Process," *Engineering Dimensions*, Winter 2024, p. 43).

In a nod to PEO history, Downey acknowledged the contribution of former Ontario attorney general Roy McMurty, LLB, to PEO history. McMurty, who passed away in March, was attorney general from 1975 to 1985 and was instrumental in introducing major changes to the PEA in 1984. "Roy was a big supporter of engineers, and back in 1984, I happened to be a page at the legislature, when Roy was helping make changes for Professional Engineers Ontario. I just wanted to note that he really was a remarkable leader."

ACKNOWLEDGING STAFF AND VOLUNTEERS

PEO CEO/Registrar Jennifer Quaglietta, MBA, P.Eng., ICD.D, used the opportunity to acknowledge that she is leading a dedicated and committed staff, stating: "The truth is that our successes and accomplishments would not have been possible without the almost 150-strong workforce at PEO. I am tremendously proud of their professionalism and dedication to helping PEO achieve its mission to regulate the practice of professional engineering in Ontario to safeguard life, health, property, economic interests, the public welfare and the environment."

At the same time, Quaglietta took the time to recognize the dedicated work of PEO's over 900 volunteers. "It is only appropriate that this year PEO's AGM falls during National Volunteer Week," Quaglietta observed. "As noted by Volunteers Canada, 'the sharing of time, skills, empathy and creativity is vital to the inclusivity, strength and well-being of our communities.' Whether you volunteer your time on Council, on a PEO committee or at chapter events in your community, you are doing your part to contribute to the professional self-regulation of engineering in Ontario." Quaglietta then introduced a PEO-produced video featuring Quaglietta and Fraser thanking the commitment of PEO's volunteers.

MEMBER SUBMISSION PRESENTED

At every AGM, licence holders are afforded the opportunity to present a submission that can be considered and debated on by licence holders in attendance at the AGM. Although the motion is voted on, the choice to act on the submission rests with Council.

Prakash Bansod, PhD, P.Eng., submitted a motion, seconded by Zeljko Sikic, P.Eng., asking that PEO's Code of Ethics be amended "to implement its version of the Hippocratic Oath, which implies that engineering practitioners must anticipate the results of their actions to ensure that these actions do no harm to humans and the human condition" and that a subclause be added to the Code of Ethics stating that "engineering practitioners are forbidden to apply their engineering seal to any document related to professional engineering under their purview if, in their considered opinion, the engineering entity described in or related to this document results in violating the 'do no harm to human or the human condition.'"

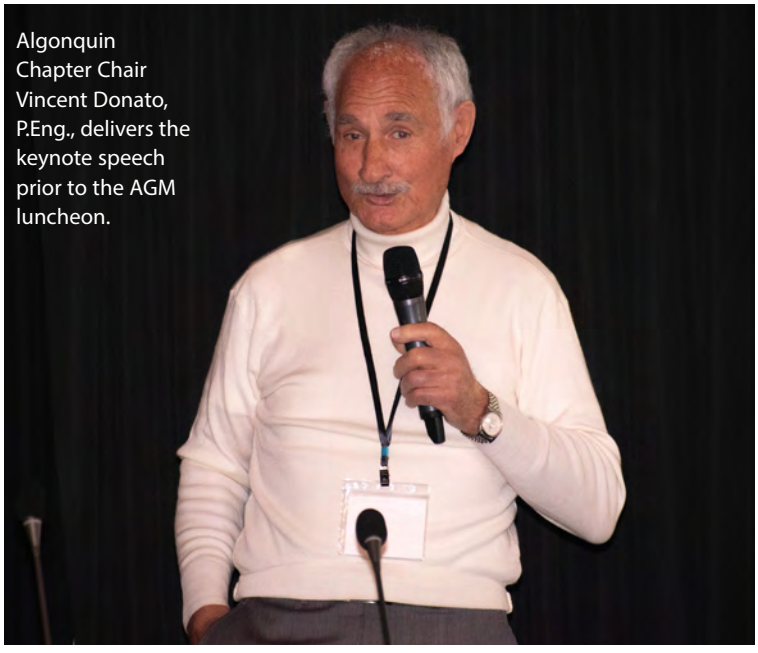
Photos: Adam Sidsworth

President-elect Fred Saghezchi, P.Eng., FEC, soaks in the AGM.

Top left: Councillor-at-Large Leila Notash, PhD, P.Eng., FEC, asks a question to AGM delegates.

Top right: President Gregory P. Wowchuk, P.Eng., FEC (far left), CEO/Registrar Jennifer Quaglietta, MBA, P.Eng., ICD.D (second from left), Ontario Attorney General Doug Downey, LLB, LLM (second from right), and Past President Roydon Fraser, PhD, P.Eng., FEC (far right), meet moments before PEO's AGM begins.

Above: Hamilton-Burlington Chapter Chair Mike Bell, P.Eng. (left), and Oakville Chapter Treasurer Jeffrey Lee, P.Eng., chat during a break at PEO's AGM.



Algonquin Chapter Chair Vincent Donato, P.Eng., delivers the keynote speech prior to the AGM luncheon.

Left to right: West Central Region Councillor Pappur Shankar, P.Eng., FEC, Windsor-Essex Chapter Chair Hanan El-Sayed, PhD, P.Eng., Western Region Councillor Susan MacFarlane, PhD, P.Eng., CEO/Registrar Jennifer Quaglietta, MBA, P.Eng., ICD.D, 2024 Order of Honour inductee Haris Ahmadzai, P.Eng., FEC, and West Central Region Councillor Ravinder Panesar, P.Eng., FEC, at PEO's AGM in Barrie, ON

The motion specifically asked Council to "strike a committee of registered PEO engineers to study the proposed changes to the Code of Ethics" and that the "committee should report back within nine months." In a nod to EDI, Bansod and Sikic asked that the committee consist of at least 41 per cent women. Delegates at the AGM qualified to vote on the submission were not in favour of the motion, with 50 per cent voting against it, 32.63 per cent voting for it and 17.37 per cent abstaining.

KEYNOTE SPEAKER ADDRESS

Immediately following the meeting, Vincent Donato, P.Eng., chair of PEO's Algonquin Chapter, gave a presentation on the responsibilities of professional engineers in a world facing anthropogenic climate change caused by carbon dioxide emissions. The presentation, which was well attended by in-person delegates, provided information on how engineers must take into account CO_2 emissions when providing engineering services.

Donato's presentation followed a tradition in line with previous in-person AGMs, which were a two-day event that featured the AGM, a luncheon with a keynote speaker, award presentations and the Volunteer Leadership Conference.

VISION STATEMENT CONSULTATION

Part of Past President Fraser's mandate as president was the development of a 2050 Vision Statement. This is in line with PEO's 2023–2025 Strategic Plan, which includes a goal to refresh PEO's vision to ensure all stakeholders see relevance and value in PEO. It is anticipated that the 2050 vision statement will describe what PEO aspires to achieve in the decades to come and align PEO stakeholders with a common purpose and direction (see "PEO to Develop a Vision Statement," *Engineering Dimensions*, Fall 2023, p. 15). The conversations at the AGM continued the work that began in the summer of 2023, when an external project team was onboarded to facilitate ongoing stakeholder engagement. Throughout the afternoon, Past President Fraser, President Wowchuk and President-elect Fred Saghezchi, P.Eng., FEC, led a consultation discussion and generative question-and-answer session with participating delegates.

The full minutes of PEO's 2024 AGM will be published in the Fall 2024 issue of *Engineering Dimensions*.

New Strategic Stakeholder Advisory Group Takes Flight

PEO takes a significant step to increase stakeholder engagement, creating a diverse group of volunteers from Ontario's engineering community to provide input on key regulatory policy initiatives.

By Adam Sidsworth

PEO's Strategic Stakeholder Advisory Group (SSAG) held its inaugural meeting on May 29, launching a new and intentional gateway for PEO to engage with its stakeholders to support its regulatory policy development process.

"The SSAG is a major step forward to expand our engagement efforts on major regulatory issues," notes Charles Blanco, PEO's manager, stakeholder relations. "It will allow us to assess the validity and thoroughness of various policy approaches that might be under consideration. Advisory group members will be asked to provide feedback, identify potential gaps or areas for concern and help to ensure we're capturing a diversity of stakeholder perspectives."

The SSAG replaces the Licensing, Enforcement and Professional Standards committees, which were stood down on December 31, 2023. The new group will be called upon when needed to discuss issues related to a variety of areas where regulatory work is underway or contemplated, such as professional practice, continuing professional development, licensing and registration and unlicensed practice. As part of their work, advisory group members may undertake several tasks, including:

- Reviewing and/or commenting on draft documents and reports;
- Engaging or proposing subject-matter experts when necessary;
- Facilitating dialogue with key stakeholders;
- Suggesting areas for additional research; and
- Recommending and contributing to engagement initiatives, such as surveys, focus groups and webinars.

The 14 volunteers selected by PEO staff to serve a two-year term on the SSAG (see sidebar) were drawn from various areas of Ontario's engineering community and reflect the diversity of the profession and the province. "There is a robust representation of engineering disciplines, including engineers from traditionally underrepresented fields, such as aeronautical and nuclear engineering and engineering physics, as well as those working in the medical and education fields," adds Blanco.

SSAG TO PLAY ADVISORY ROLE

The SSAG is supported and managed by staff in PEO's external relations department, which provides PEO stakeholder engagement opportunities through practice advisory services, pre-licensing outreach and stakeholder relations while identifying and addressing any gaps or potential risks in PEO operations. The goal is to better inform PEO policies, practices and strategic initiatives and ensure PEO is perceived as a responsive regulator.

In 2021, Council established a governance model that distinguishes between governance committees and regulatory committees. PEO's four governance committees relate to the oversight and direction of PEO as an organization and are populated by members of Council, while regulatory committees, populated by volunteers, perform core functions of PEO's mandate and are mandated by the PEA. "The work of the SSAG, combined with feedback from our other engagement initiatives, will support well-informed, evidence-based deliberations by our governance committees, which in turn report to Council, the ultimate policy-making body at PEO," Blanco explains.

SAAG MEMBERS

The inaugural members of the SSAG are:

Iad Abdul-Rahman, PhD, PMP, P.Eng., PLP, AME, aviation consultant, Aviation Leed Consulting Company
Parisa Bahrami, P.Eng., PMP, CCE, clinical engineer, Children's Hospital of Eastern Ontario
Sneha Bernard, P.Eng., project lead, Natural Resources Canada
Mymoon Bhuiyan, engineering student, McMaster University
Colleen Follis, P.Eng., responsible tailings facility engineer, Vale Base Metals
Dalia Hanna, PhD, P.Eng., PMP, associate dean, School of Social and Life Science, Sheridan College
Inga Hipsz, P.Eng., vice president, standards, strategic development, CSA Group
Anil Lal, P.Eng., manager, engineering and technical services, TSSA
Andrew Naassan, P.Eng., field engineering manager, Bruce Power
Joshua Pope, P.Eng., founder, board member and CEO, Trajekt Sports Inc.
Stephanie Price, P.Eng., FEC, CAE, executive director, Federation of Medical Regulatory Authorities of Canada
Joel Primeau , P.Eng., HBDP, president and chief instructor, Delta Competence
Eva Wu, P.Eng., lead software engineer, PICCO Engineering Ltd.
Kaoru Yajima, P.Eng., PE (Oregon), senior project engineer, Regional Municipality of Waterloo

Ministry of Mines Updates Mine Rehabilitation Code

Under recent amendments to the *Mining Act*, the Ontario Ministry of Mines updated its definition of qualified persons to clarify professional engineers' scope of practice under the Mine Rehabilitation Code of Ontario.

By George Pirie

Broad amendments to the *Mining Act*, including the Mine Rehabilitation Code of Ontario, came into effect on April 1. Ontario Regulation 35/24: Rehabilitation of Lands, which replaces O. Reg. 240/00: Advanced Exploration, Mine Development and Closure under Part VII of the *Mining Act*, more clearly clarifies the credentials required to be considered a qualified person for mine rehabilitation that are proportionate with mine rehabilitation-related risks.

The province's *Building More Mines Act, 2023* amends the *Mining Act* and sets the stage for Ontario to become the leading global jurisdiction for mineral investment and development, creating the legislative and regulatory environment for companies to build mines more efficiently to support developing a made-in-Ontario critical minerals supply chain for the global electric vehicle revolution. This integrated supply chain will connect northern Ontario's critical minerals producers with our world-class manufacturing sector in southern Ontario.

Under O. Reg. 35/24, the role of qualified persons is more clearly defined in two main areas:

- New requirements to assure code-compliant closure plans; and
- A mechanism that will allow alternative rehabilitation measures.

These changes are designed to help companies save time and money by reducing administrative burden, clarifying requirements for rehabilitation and creating regulatory efficiencies while maintaining Ontario's strong standards for environmental protection and meeting the duty to consult with Indigenous communities. They are designed to ensure Ontario remains a competitive jurisdiction for mineral development and maintains its public health and safety and environmental standards. The Ministry of Mines recognizes that professional engineers play an important role in mine closure planning and building up the entire mining sector—and building up Ontario.

DEFINING A QUALIFIED PERSON

O. Reg. 35/24 was developed as a two-layer system consisting of minimum credentials and limitations of scope that provides a protective set of rules aligning education with experience, ensuring professional engineers are recognized qualified persons under the *Mining Act*. The code, which is made up of 10 parts and lays out a detailed set of instructions a proponent is expected to follow when rehabilitating mine hazards, covers a broad spectrum of technical expertise. Because professional engineers practise in a wide range of engineering disciplines, they will not be limited in any parts of the code.

Previously, O. Reg. 240/00 specified no requirement for an attestation, or certification, from a suitably qualified person indicating that the technical content of a closure plan was compliant. This is why, under the new regulation, it is required that all closure plans contain certifications from qualified persons to attest that the closure plan is compliant with all parts of the code. Additionally, to avoid attempts to limit liability, O. Reg. 35/24 now specifies the form that must be certified by a qualified person. To ensure enforceability, only one qualified person can certify any one part, and they must now consider that the content of a closure plan is compliant with all relevant provisions within a part of the code.

INNOVATIVE SOLUTIONS WHEN REHABILITATING MINES

Additionally, the ministry has given professional engineers the ability to use innovative solutions when developing mine rehabilitation strategies. Rehabilitation of mine hazards in Ontario is consistently evolving, and engineers and other specialists alike integrate their cumulative experience to ensure more effective ways of rehabilitation. These requirements prescribed in the code, which had not been substantially updated since 2000, could have potentially been inappropriate in some circumstances. It also meant that newer, improved methods from the collective experience of professionals could have been considered non-compliant.

To fix this dilemma, O. Reg. 35/24 now allows qualified persons to apply alternative, state-of-the-art rehabilitation measures. Each part of the code has an overarching objective statement that describes Ontario's intentions for rehabilitation. Proponents can use an alternative rehabilitation measure where a qualified person certifies that the alternative solution meets or exceeds the objective statement. To protect Ontarians from unsuitable or unproven approaches, two measures were taken. Specifically:

- The objective statements for each part of the code were reviewed and updated to ensure their intents were properly reflected and avoid interpretation issues; and
- Alternative rehabilitation measures are given a different certification template in the regulation and specifically indicate that the qualified person must also certify that the alternative is consistent with recognized industry standards and best practices, sound scientific principles and good engineering practice.

This approach allows professional engineers flexibility when developing mine rehabilitation strategies to meet unique, site-specific circumstances that are often associated with mining while continuing to protect health and safety and the environment.

For more information on the updated regulations, refer to O. Reg. 35/24 on the Ministry of Mines website.

The Honourable George Pirie is Ontario's minister of mines. He has been the MPP for Timmins since 2022. He was previously the mayor of the City of Timmins.

PEO Simplifies Order of Honour Nomination Process

A new, simplified nomination process for PEO's volunteer recognition program eliminates mandatory letters of support.

By Adam Sidsworth

In a bid to increase the representation of PEO volunteers recognized by the Order of Honour (OOH), PEO is eliminating mandatory letters of support in favour of a streamlined process that will make it easier for both nominators and assessors to effectively determine a nominee's eligibility for the OOH.

Council approved the new process at its April meeting. At the same meeting, Council also voted to close the nomination period to an annual fixed term of time to be determined by PEO but likely beginning each June. In previous years, nominations could be submitted all year round. Additionally, all OOH guidelines have been updated to reflect the fact that since 2023, OOH nominations have moved to an exclusively online format in PEO's portal.

The shift to a more streamlined nomination process follows a survey of nominators and members of the Order of Honour Selection Committee (OSC), which indicated that nominators struggled to write substantive letters of support, while members of the OSC found that the letters were repetitive and lacked enough evidence for the nomination. "In this review and consultation process, PEO's goal was to improve the experience of nominators and OSC members evaluating nominations. The new process has been streamlined and should result in obtaining relevant and sufficient information about each nominee," says Rob Dmochewicz, MPR, CVA, PEO's lead, events management and volunteer recognition, who notes that each nominator will still be allowed to include two optional letters of support from non-nominators. "In addition to letters from non-nominators, the lead nominator can upload up to two pictures, magazine clippings or other relevant material supporting the nomination. However, this is optional and not required."

The changes this year follow amendments introduced last year, when the OOH transformed from an award program to a recognition program with a measurable assessment process. Those changes were aimed to quantify the nomination process while taking out subjectivity and framing the OOH within PEO's regulatory mandate (see "PEO's Order of Honour Gets an Update," *Engineering Dimensions*, Summer 2023, p. 43).

NOMINATORS TO BE ASKED SPECIFIC QUESTIONS

Because mandatory letters of support are no longer required, nominators will instead answer specific questions designed to solicit answers to the three categories included in the OOH criteria. Nominees can receive up to 20 points for accumulative service in the engineering profession; up to 60 points for overall impact of service in the engineering profession and involvement; and 20 points for involvement in justice, equity, diversity and inclusion activities related to the engineering profession and societal impact. Sample questions that nominators will be asked of the nominees include:

- Why should your nominee be recognized through the induction into PEO's Order of Honour? How does your nominee represent the principles of the Order? (See sidebar for principles.)
- How many calendar years of PEO volunteer service does your nominee have?
- Which chapter(s) did your nominee support as a PEO volunteer? Can you detail the specific contributions of your nominee to the chapter and how these have significantly impacted its operations or success? How has your nominee's leadership directly influenced the chapter's culture and success?
- What makes your nominee a JEDI (justice, equity, diversity and inclusion)? Describe your nominee's involvement in JEDI activities related to the engineering profession, specifically within local PEO initiatives. Please list all JEDI-related programs involved, notable achievements, recognitions from local engineers and your nominee's role in educating new engineers about JEDI.

"All these questions are tied to the nominee's service and impact to PEO and prompt nominators to be very specific because OSC members need to adequately measure nominees for meeting the criteria while using the scoring system introduced in 2023," says Dmochewicz.

PEO RECOGNIZES DIVERSITY OF VOLUNTEERS

According to Dmochewicz, it is hoped that the simplified nomination process will attract the nomination of PEO volunteers who accurately reflect the diversity of the engineering profession and of PEO volunteers. "Although the purpose of recent OOH nomination changes was to streamline the nomination process, our strategic focus is on attracting more nominations from diverse and underrepresented groups, including worthy candidates from marginalized and underrepresented communities," Dmochewicz says.

PEO's commitment to incorporating diversity, equity and inclusion best practices into all PEO systems and operations is reflected in PEO's Anti-Racism and Equity Code, which PEO introduced in 2022. The eight-principle code enshrines PEO's commitment to its fairness, human rights and public-interest obligations. The eight principles include one focused on leadership and sponsorship that commits PEO "to promote and achieve equity and foster inclu-

sivity across all leadership endeavours, leadership levels, opportunities, plans and processes" and another equitable organization principle that commits PEO "to achieving such representation at all levels in the organization and fostering retention, inclusion, advancement, belonging and equity and equity-seeking persons and everyone at all levels of the organization."

Order of Honour Background

The OOH was founded in 1963 as the Sons of Martha, when PEO was equal parts a regulator and advocacy body. The Sons of Martha has gone through two name changes in the subsequent decades, as well as numerous qualification criteria. The present-day principles of the OOH are:

- Identifying extraordinary volunteers who support PEO's statutory mandate to regulate the engineering profession in Ontario to protect the public interest;
- Maintaining a limited number of inductees into the OOH to ensure only extraordinary volunteers are given the OOH;
- Establishing a selection process for new members of the OOH that ensures accountability; fairness; transparency; and justice, equity, diversity and inclusion; and
- Confirming that potential and active members of the OOH reflect the high degree of ethics and professional conduct of the engineering profession.

There are three OOH classes reserved for licence holders in good standing. (If they are a former Council member or PEO employee, they must wait six months before they can be considered.) To qualify for the **Member** class, you must have a minimum of 10 years of substantial volunteerism with PEO. There is no limit to the number of living people in the Member category at any given time. The **Officer** class requires 15 years of service and have qualifications above the Member category. There can have no more than 100 living Officers at any given time. The **Companion** class requires at least 20 years of volunteerism with PEO and meet qualifications that excel the Officer category. There can be no more than 50 living Companions at any given time.

A fourth designation, the **Honorary** designation, is for non-licence holders who have demonstrated outstanding service, support or assistance to the engineering profession and can be nominated in any class, subject to Council approval at the request of the OSC.

For more information on the OOH, visit www.peo.on.ca/volunteers/volunteer-service-recognition-program/order-honour.

Engineers Canada Issues National Statement of Collaboration

The national engineering organization presented its National Statement of Collaboration during its annual meeting of members in May.

By Adam Sidsworth

Engineers Canada issued its National Statement of Collaboration during its annual meeting of members in Winnipeg, MB, on May 23. The statement was endorsed by all 12 provincial and territorial engineering regulators, including PEO.

PEO endorsed the statement in early April, following a review of a draft statement and related materials by PEO's Governance and Nominating Committee and approval of the final form by PEO Council.

The statement reflects a Canada-wide commitment by all engineering regulators to proactively work together to strengthen harmonization and collaboration, including addressing national and international barriers to mobility for engineering and engineering entities, advancing public safety and increasing regulatory efficiency. "The intent for the national statement is for the 12 provincial and territorial engineering regulators to commit to moving their requirements and processes closer together over time," notes Christian Bellini, P.Eng., FEC, an Engineers Canada director representing PEO and chair of the task force that developed the national statement. "The national statement acts as a lens through which regulators can view changes they may be contemplating or as a platform they can use to evolve their processes together."

COLLABORATION KEY TO SUCCESS

As the national organization serving Canada's 12 provincial and territorial engineering regulators, Engineers Canada was founded to foster collaboration, harmonization and innovation across the country. The new national statement stems from a priority identified in Engineers Canada's 2022–2024 Strategic Plan that aims to work with regulators to understand barriers and success factors leading to harmonization and facilitate the adoption of a national agreement to establish the principles and areas where pan-Canadian harmonization will be sought.

Bellini notes that the regulators were consulted throughout the development of the national statement. "We focused our efforts on understanding what the regulators wanted out of this initiative. Our primary consultation was with their staff and councils and CEOs and presidents. We also organized in-person facilitated consultations that explored the desire for collaboration and harmonization, specific regulatory items that could be worked on and a vision for what future collaboration and harmonization might look like," Bellini says. "We used this information to inform what the collaboration statement might look like."

The statement was developed with the recognition that public protection requires a continued effective, fair and equitable regulatory framework; that increased collaboration and harmonization of legislation will bring increased efficiency to engineering regulation and the perception that Canadian-licensed engineers can work across Canada and internationally. Indeed, Bellini, a former PEO president, notes that many recent innovations in engineering regulation resulted from collaboration between engineering regulators. "We found that a number of harmonization successes happened when a small number of regulators collaborated, and then their work was later adopted by more regulators," notes Bellini, citing the development of the National Professional Practice exam and competency-based assessments developed through the initial collaboration of two or three regulators.

Notably, the statement states that the provincial and territorial engineering regulators should:

- Proactively share information and actively pursue alignment among all regulators;
- Assess changes to their legislation, regulation, bylaws, policies, programs or practices within a mindset of collaboration;
- Identify and work on national priorities for collaboration and harmonization initiatives and encourage consensus among the other regulators;
- Participate in resource collaboration and harmonization initiatives or indicate their intention to not be involved;
- Focus on collaboration as a basic approach to key regulatory activities, such as interpretating their legislation in a way that encourages participation in national initiatives; and
- Advise the other regulators on the regulatory impact to and interests of provincial or territorial partners and stakeholders that would be affected by increased national collaboration and harmonization initiatives.

Meanwhile, Engineers Canada will, among other things, maintain the processes and infrastructure to allow for the sharing of information and collaboration and act as a facilitator of information for regulators' information, as well as information regarding regulatory changes across all jurisdictions.

PEO CEO/REGISTRAR PARTICIPATES IN 30 BY 30 PANEL DISCUSSION

PEO CEO/Registrar Jennifer Quaglietta, MBA, P.Eng., ICD.D (left), participates in a 30 by 30 panel discussion facilitated by Jessica Vandenberghe, P.Eng. (Alberta), FEC, FGC (Hon) (right), during the 30 by 30 Conference on May 22 in Winnipeg, MB.

On May 22, PEO CEO/Registrar Jennifer Quaglietta, MBA, P.Eng., ICD.D, participated in a panel discussion at the 30 by 30 Conference in Winnipeg, MB, hosted by Engineers Canada during its spring meeting and annual meeting of members.

Quaglietta was joined by leaders in engineering regulation and education, including Jim Landrigan, MBA, P.Eng., FEC, executive director and registrar of Engineers PEI; Jay Nagendran, P.Eng. (Alberta), FEC, FGC (Hon), FCAE, ICD.D, CEO/registrar of the Association of Professional Engineers and Geoscientists Alberta; and Amy Fehr, P.Eng. (BC), manager, professional practice advice program at Engineers and Geoscientists BC. The four were moderated by Jessica Vandenberghe, P.Eng. (Alberta), FEC, FGC (Hon), assistant dean, community and culture, faculty of engineering and computer science at the University of Victoria. The panel discussed lessons learned during the past five years of the Engineers Canada–led 30 by 30 movement, which aims to achieve gender equality in engineering by having Canada's provincial and territorial engineering regulators reach the milestone of women representing 30 per cent of newly licensed engineers within their jurisdictions by 2030.

The goal of the 2024 30 by 30 Conference was to allow knowledge sharing with people from across Canada and the engineering community; the networking of engineering peers from across the country and to promote concrete ideas and strategies to move forward gender equality on an individual level and as an engineering collective.

Gender equality within the engineering profession has been championed by Quaglietta, along with other equality, diversity and inclusion causes, since Quaglietta became PEO's CEO/registrar in 2023. Quaglietta is a champion of PEO's Anti-Racism and Equity (ARE) Code, and, notably, in 2023, under Quaglietta's leadership, PEO hired its first equity, diversity and inclusion manager, who will ensure PEO adheres to the principles it adopted in its ARE Code.

McMaster Offers Engineering Outreach Program for Black Youth

For the second year, McMaster University is offering a Black Outreach in STEM Series, which aims to attract Black students and youth to STEM with culturally relevant workshops.

By Adam Sidsworth

McMaster University's Black Outreach in STEM Series (BOSS) recently launched its 2024 session after reaching 2100 Black youth, including over 1000 students from nine Ontario school boards across the Greater Toronto Area and southern Ontario in 2023. The program, organized by McMaster's faculty of engineering, aims to break down stereotypes and foster a sense of belonging in STEM, where Black people have been historically underrepresented.

Initially, BOSS saw Black youth in grades 10 and 11 come to McMaster's campus for a tour of the engineering faculty and engineering-focused activities to help kids make the connection that engineering touches all aspects of society. The program has since evolved to in-classroom visits and workshops at other external venues as part of the faculty's barrier-free outreach programs, which also include inclusive and accessible STEM programming for girls and Indigenous and 2SLGBTQ+ youth.

"The goal of the program is not to convince kids that they need to pursue engineering but to make them curious and engage them in engineering and better understand the opportunities that exist for them," says Jodi-Anne Buckley, Black student recruitment and career advisor, engineering co-op and career services at McMaster. "Our outreach programs are designed to be meaningful to participants and culturally relevant."

Indeed, BOSS offerings include a Hair Care Series Workshop, STEM in Sports Workshop and Community Design Challenges after a student survey revealed that students are interested in these areas. "The goal of BOSS is for students to see that you don't have to pursue education and dismiss the things [you're interested in] and see how engineering is built into a lot of the things we have," notes Buckley. "For example, with haircare, students formulate a haircare product and chemical cream or formulate the product and see how the individual ingredient adds to the overall composition. They learn about curly-textured hair and its evolution and all of these different types of [engineering] terms."

INCREASING ENGINEERING'S DIVERSITY

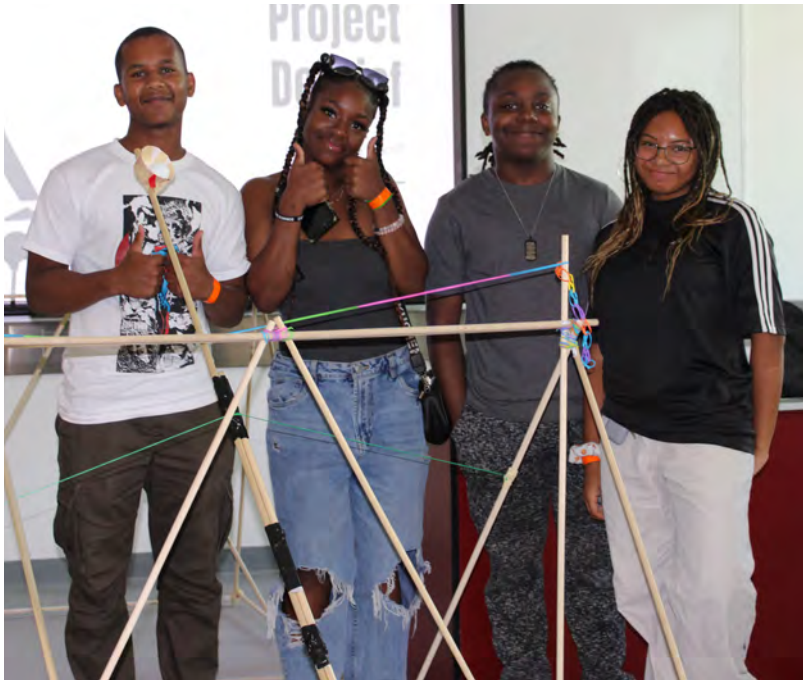
BOSS is one of many outreach programs offered by McMaster's engineering faculty for youth from preschool to Grade 12, including programs focused on toddlers and kindergarten students and summer camps for grade-school students. Similarly, other engineering faculties across Ontario are working to reach Black youth, including the University of Toronto, Ontario Tech University, the University of Waterloo, Western University, Carleton University and Queen's University (see "Queen's Engineering Faculty Begins Diversity Initiative for Black Students in STEM," *Engineering Dimensions*, November/December 2020, p. 14).

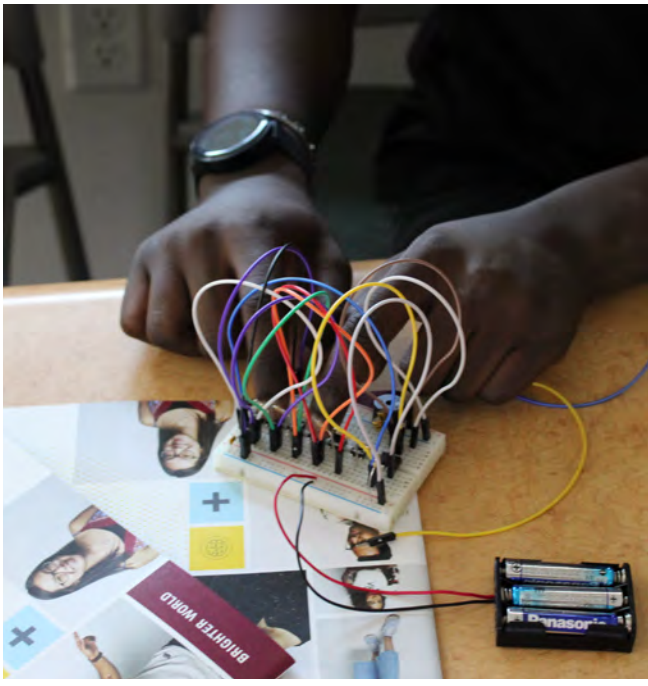
In addition to outreach programs, some Ontario universities provide engineering scholarships specifically for Black students, including the University of Toronto and McMaster University (see "McMaster Offers New Scholarship for Black Engineering Students," *Engineering Dimensions*, March/April 2021, p. 14).

Eleven Ontario engineering faculties also participate in the Indigenous and Black Engineering Technology PhD Project, designed to encourage more Indigenous and Black people to pursue a PhD-level degree in engineering and, ultimately, tenure in an engineering faculty to better represent society and so that students can see themselves reflected in their teachers and leaders (see "Six Universities Launch $100,000 Fellowships for Indigenous and Black Engineering PhD Students," *Engineering Dimensions*, March/April 2021, p. 11).

In the meantime, McMaster is continuing its efforts to increase diversity in engineering education in Ontario. Buckley notes: "We do have students who indicated they would come back to McMaster to do another workshop, that they learned a lot about engineering…we had a number of students say they knew nothing about engineering before coming to this workshop, and now they have at least a basic understanding of what engineering is like. We have had applicants to the engineering faculty who have participated in BOSS."

Anyone interested in keeping up to date with BOSS can subscribe to the BOSS newsletter at www.eng.mcmaster.ca/boss-newsletter-subscription-form.





Top left: Students complete the Sports in STEM workshop, which teaches concepts related to engineering physics, such as projectile motion, gravity and air resistance.

Above: A student displays their mini keyboard built using electrical engineering concepts as part of McMaster's BOSS outreach program.

Left: Students participating in a workshop create hair oil using chemical engineering concepts that consider the unique qualities of Black hair.

Bottom left: Students participate in a workshop that teaches them about electrical and audio engineering concepts by building a mini keyboard using a breadboard.

2025 ORDER OF HONOUR
CALL FOR NOMINATIONS

The Order of Honour is PEO's highest volunteer recognition program. An honorary society, the Order recognizes PEO volunteers who have made substantial contributions to support PEO's statutory mandate to regulate the engineering profession in Ontario to protect the public interest. In keeping with its Anti-Racism and Equity Code, PEO seeks nominees who reflect the diversity of the engineering profession.

In 2023, PEO streamlined the nomination and selection process of the Order of Honour to be transparent, free of subjectivity and better reflect PEO's public protection mandate. Starting this year, nominators are not required to submit letters of support.

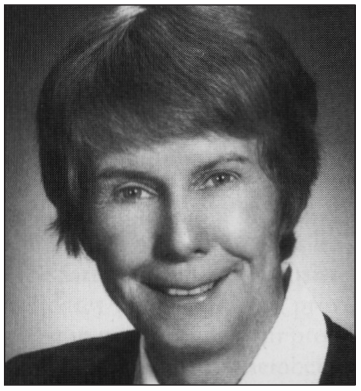
THE ORDER OF HONOUR SELECTION COMMITTEE INVITES MEMBERS TO SUBMIT NOMINATIONS BY OR BEFORE 4 p.m. ON OCTOBER 11, 2024.

Nominators should follow the updated nomination guidelines, which can be found on PEO's website, and submit complete details on their nominee through PEO's online portal. Individual statements from each nominator must accompany the nomination. Members and Officers of the Order who have continued serving and leading the engineering profession can be nominated for an upgrade to a more advanced category. Questions? Email orderofhonour@peo.on.ca

Remembering an Early Advocate for Women

As far back as the 1960s, Mary Jane Phillips provided a sense of belonging for women entering engineering.

By Natalya Anderson



The lack of women in engineering didn't prevent Mary Jane Phillips, PhD, P.Eng., FEC, from finding ways to help them to feel welcomed.

HER FAMILY DESCRIBED HER AS "BROUGHT UP TO BELIEVE THAT HER OWN ABILITIES WERE THE ONLY LIMIT TO WHAT SHE COULD ACHIEVE."

Mary Jane Phillips, PhD, P.Eng., FEC, was PEO's second woman president, but there was nothing second best or second place about Phillips's legacy. Known as a trailblazer for women in engineering and equity, diversity and inclusion (EDI), Phillips served on and chaired many PEO committees, including 35 years of service on the Complaints Committee.

Another former president, Marisa Sterling, P.Eng., FEC, considered Phillips an invaluable mentor in university, and one of the reasons we see a growing female presence in the industry today. "Professor Phillips was a faculty member in chemical engineering during my undergraduate education," says Sterling, who is assistant dean and director, diversity, inclusion and professionalism of the faculty of applied science and engineering at the University of Toronto (U of T). "Although she was never one of my instructors, I would see her in the hallways of the Wallberg Building, and she would often inquire about how my studies were going. She introduced me to the Pi Beta Phi sorority on campus that she was a member of, encouraging me to find a community of women during my time at U of T."

Sterling says it was Phillips's ability to relate to other women of all ages that drew so many to her.

"Later in life is when I really understood Professor Phillips' circumstances and her outreach to me," says Sterling. "You see, she was the first, and I believe while I was at U of T, the only woman professor in chemical engineering. So she also likely felt that she was different and was trying to find ways to feel like she belonged."

BLAZING HER OWN TRAIL

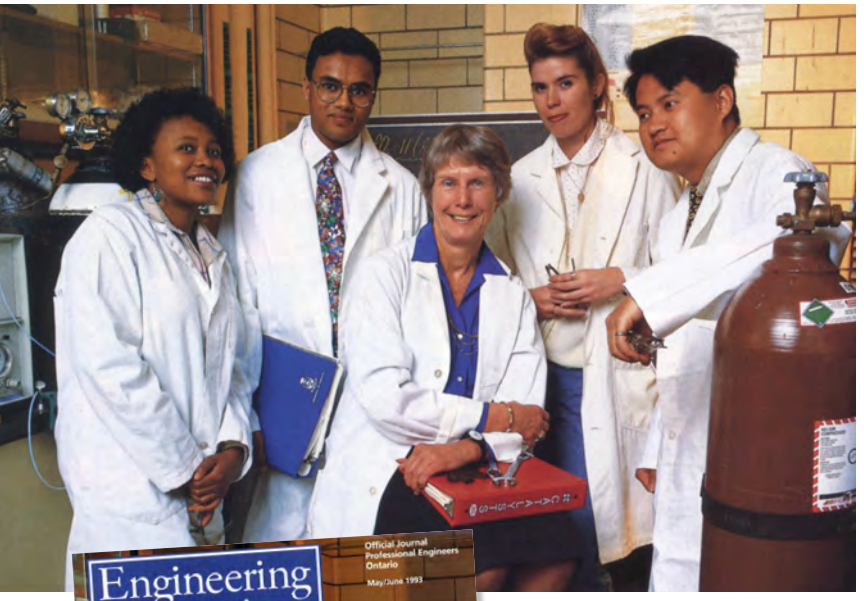
Phillips was born in Toronto, ON, on September 15, 1931. Her family described her as "brought up to believe that her own abilities were the only limit to what she could achieve." Indeed, it was a mantra she carried with her as a student at U of T, where she earned a BASc in chemical engineering in 1953. It was a time when women engineering students were virtually non-existent. This lack of visibility didn't prevent Phillips from earning a scholarship to Bryn Mawr College, where she studied physical chemistry.

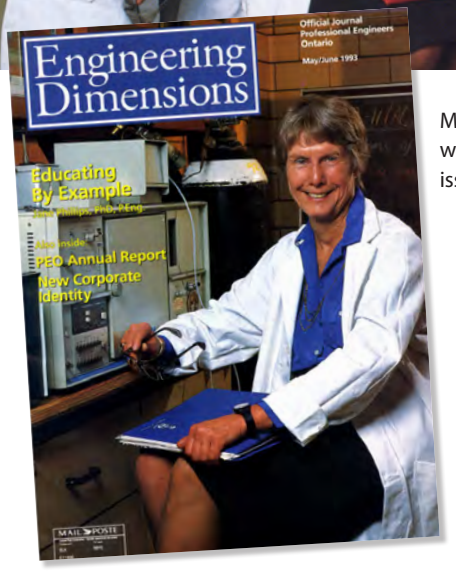
While she was en route to earning her PhD in the same subject at Johns Hopkins University in 1960, Jane worked for Dupont in Wilmington, Delaware, after which she conducted a year of research with the Department of Energy, Mines and Resources (now the Department of Natural Resources) in Ottawa, ON, and another at Queen's University Belfast in Northern Ireland for her British Petroleum Fellowship. Her career at U of T became the stuff of legend when she returned to Toronto following her fellowship. As the first woman lecturer in the department of chemical engineering and applied chemistry at her alma mater, she undoubtedly created a safer path for other women in engineering.

Licensed with PEO in 1975, she was initially appointed to PEO Council in 1986 before becoming elected vice president in 1991 and the second woman president during the 1993–1994 Council term. In addition to PEO's Complaints Committee, Phillips served on the Advisory Committee on Committees, the Women in Engineering Advisory and Finance committees and a task force on engineers in education. In 1998, she became a Companion of PEO's Order of Honour, the volunteer recognition program's highest distinction.

Forever a supporter of PEO's chapter system, Phillips maintained her desire for PEO to evolve as a regulatory environment. She described the concept as "a vital two-way link between our members and Council," as well as an integral bridge to resources in education within industry communities. One of her greatest impacts during her service as president was her belief in the principle of moving to a four-year experience requirement for P.Eng. licensing, beginning in 1995.

Throughout her term as president, Phillips continuously advocated for women in engineering, and she was fearless in shining a light on where and how misconceptions about women engineers could be improved. In her "Perspective" piece for the November/December 1993 issue of *Engineering Dimensions*, Phillips examined the precarious topic of patriarchal acceptance of women leaders. While participating in a panel discussion for secondary school teachers across Canada, "Cracking the Glass Ceiling: Career Paths for Women in Science and Engineering," Phillips noted the need for more Canadian confidence and numbers in the industry. She encouraged what was a bold initiative when she wrote the piece: women advocating for themselves.





Mary Jane Phillips, PhD, P.Eng., FEC, was featured in the May/June 1993 issue of *Engineering Dimensions*.

"The stories the panelists recounted about their lives and careers were fascinating and deserved a much wider audience," Phillips recounted in the article. "My 10 minutes were largely devoted to numbers: women in engineering, as undergraduates and graduate students. Several of the questions from the floor referred to things that PEO has been pushing for some time: letting friends, neighbours, the community know what we do as engineers, reminding them of the importance of what we research, design, plan, build, operate and maintain."

RECOGNIZING HER IMPACT

Among her many accolades, Phillips received the Engineering Alumni Medal from U of T in November 2023. Not long after, Sterling had a final, cherished encounter with her mentor. "One of my last visits with Professor Phillips was at her apartment in Bradgate Arms last December," says Sterling. "She had just returned from some time in the computer room, where she was researching current events and topics of interest. And I love that she was also troubleshooting computer issues into her 90s."

Sterling further recounts how important PEO was to Phillips, evident right to the end of her life.

"She would have downsized the items from her home when moving to retirement living, and yet one of the first things she proudly displayed at her entrance was a recognition award from the PEO Complaints Committee for her longstanding service," recalls Sterling of yet another of Phillips's proud roles. "She took the public accountability of being an engineer very seriously. She was so very proud of this acknowledgement and spoke glowingly about it and her time as PEO president."

Sterling invited Phillips to attend U of T's December 6 memorial event honouring the lives of women impacted by gender-based violence, where Sterling acknowledged her over 30 years as the only woman professor in her department. "When I was an undergraduate student, I didn't appreciate the likely impact of this isolation," explains Sterling, "but I know I did benefit from how Professor Phillips pushed forward in her career, pursued what she wanted and offered her support and networks to me. And I am grateful I had the chance to give her this acknowledgement and tell her directly before her passing."

Sterling feels that Phillips's early work leading U of T's ethics in engineering course likely paved the way for what is now a more extensive dialogue in engineering education. Phillips believed that ethical behaviour must include equitable behaviours, and the opportunities many women engineers embrace today are likely linked to the hard work of Phillips. "The work of women in engineering committees from the last century of which Professor Phillips was a member of," adds Sterling, "have benefited so many of us who now have seats at tables where we can take on the next challenges."

Phillips was known for her *joie de vivre*, which was reflected in her hobbies and passions outside of her career. These included but were certainly not limited to the performing arts, swimming, tennis and collecting 18th century blue-and-white porcelain. She was a proud roommate to her pets Ginger Cat, Twoey, Mooch and Mouse.

She passed away on March 18, 2024, after several weeks in care at St. Michael's Hospital, but Phillips's impact continues to be felt by Sterling and other women in the industry every day. "I think we all search for community, a place where we can relax and just be ourselves," says Sterling. "And when we feel comfortable and safe, we can share our thoughts and ideas without fear of judgement or dismissal. This can lead to collaborations, ventures and achievements in our professional and personal lives. I think Professor Phillips knew this and tried to do what she could for young women." **e**

Ontario Electrical Safety Requirements for Plan Review Submissions

Electrical plan reviews are essential for the safe outcome of projects. They ensure compliance with the Ontario Electrical Safety Code and can reduce delays and additional costs at a later stage.

By Nansy Hanna, P.Eng., and Steve Habermehl

When perusing daily news headlines, it's not uncommon to come across articles about electric vehicles or a net-zero economy. It's widely acknowledged that Ontario is amid an energy transition, and the engineering community, with all its diverse disciplines, plays a pivotal role in supporting it.

The Electrical Safety Authority (ESA), a delegated administrative authority tasked with enhancing electrical safety for the well-being of Ontarians, is actively collaborating with various industries, including the engineering community, during the ongoing technological advancements and electrification transformation in the province. It's a thrilling time for the ESA to work hand in hand with the industry.

THE VALUE OF PLAN REVIEWS

One of the main connection points between the ESA and the engineering community is the Ontario Electrical Safety Code (OESC) Rule 2-010 requirement for the submission of plans for compliance review. The purpose of this requirement is to ensure that if non-compliant portions of a design are identified and changes are required to achieve compliance with the code, they are captured in the early stages of the project. This is a critical value that the ESA's plan review (PR) provides, specifically where large equipment with a long lead time for ordering and delivery is impacted. Such defects could have a detrimental impact on projects if identified at later phases of a project.

Examples of projects that require a PR submission are emergency power generators for life safety systems, installations involving electric-power-generating equipment or energy storage systems with a rating of more than 10 kW and operating in parallel with a supply authority system and installations operating in excess of 750 V. For a full list of installations requiring a PR submission, please see Bulletin 2-11-*.

The ESA recently completed a public consultation on proposed changes to the OESC, demonstrating its commitment to continuous improvement. A couple of these proposed changes are related to projects requiring a PR submission. One of the proposals is to add PR submission requirements for the installation of electric vehicle supply equipment (EVSE) in other than a single dwelling unit. As new technologies, including EVSE, are introduced to the market, installing this equipment will change the circuit loading and demand of existing electrical infrastructure. This proposal, if implemented, will assist the industry in ensuring compliance before undertaking any work and confirm that plans for managing the additional loads are in place, avoiding unexpected additional costs. The proposal will act as an early-stage discovery to address potential fire hazards. The threshold for the submission of plans is proposed to be where the additional EVSE is 30 per cent or more of the rating of the service equipment.

SUBMITTING PLAN REVIEW DOCUMENTS

All PRs are submitted through the ESA's Electronic Plan Review (EPR) portal. To ensure an effective PR submission that maximizes the benefits ESA review offers, it is essential to include all required documents. Some of the documents that are often missed and may be required, depending on the type of occupancy and scope of work, include:

- Completed PR submittal form (found on the EPR portal homepage);
- Single-line diagrams;
- For Distributed Energy Resources (DERs) installations that run in parallel with the supply authority or have the functionality to do so need a letter or documentation identified as coming from the local supply authority confirming they are aware of the connection;
- Electrical equipment room layout drawings;
- Electrical equipment specifications; and

- Ground Fault Protection (GFP) scheme for interconnected systems that includes the location of the neutral conductor, system bonding jumper, GFP sensor(s) location and type of sensing utilized.

Following are some of the top non-compliance items on submitted drawings.

- Underground conductor ampacity must consider the termination temperature requirements of OESC Rule 4-006. Bulletin 4-12-* clarifies that the ampacity is based on the lower value of Tables 1 to 4 or the related D Table. Of note, D Table ampacities may only be used when the trench details match the conductor configuration and dimensions of the related diagram. Don't forget to include the warning tape approximately halfway between the grade and the uppermost cable/raceway.
- OESC Rules 10-210 and 10-212 require a single system bonding jumper for all solidly grounded systems. For services, the connection between the grounded conductor (neutral) and bonding terminal must be made at the consumer's service equipment. For separately derived systems, the system bonding jumper is permitted at either the source or the first switch controlling the system. Where separately derived systems are interconnected, such as a customer-owned transformer and stand-by generator via a three-pole transfer switch, Rule 10-212 requires the system bonding jumper to be located at the tie point.
- Complex ground fault protection (GFP) schemes for interconnected separately derived systems must consider the location of the single system bonding jumper, as described in the previous bullet, when selecting the type of ground fault protection and location of the sensors. Often, GFP systems are chosen that require a system bonding jumper to be located at each of the interconnected sources, which creates non-compliance with Rule 10-212. Additional information on these requirements may be found in Bulletin 14-6-*.
- Few certification programs exist for high-voltage equipment. As such, ESA has developed Bulletin 36-15-*, which summarizes the accepted built-to-standards for common types of high-voltage equipment.

EXAMPLES OF MISSED OPPORTUNITIES

A recent example of a project that could have benefited from considering the PR observations of non-compliance but missed this opportunity included the installation of two multi-residential towers with multiple levels of a common underground parking space. The main service and distribution equipment were located on one of the underground parking levels, and feeders ran from this equipment into each of the towers. The PR team noticed that no disconnecting means were provided in the towers, integral with or adjacent to the distribution equipment supplied by the feeders.

A comment was added to the report noting the requirements of Rule 14-418, which requires a disconnecting means to be provided either integral with or adjacent to the distribution equipment where one building supplies another building. This is an important safety requirement to ensure there is a means to disconnect the power at each tower. However, the submitter did not call PR to inquire about or get more information on the comment, nor was the design updated to correct the identified non-compliance concern. The installation was completed, and the inspector again noted the OESC violation and issued a defect. Correcting the defect at this late stage of the project resulted in considerable delays and additional costs.

Examples like these demonstrate the value that ESA's PR provides. The energy transition for Ontario is an important time of change. With more projects on the go, tight timelines and tight budgets, engineers can support a smooth project implementation. We must continue to adapt our workflow, remain connected and engaged and leverage innovative approaches to achieving our collective goals. ESA continues to evolve its role as a safety advocate and a valued part of the electricity ecosystem.

More information about PR submissions can be found on the ESA website at esasafe.com/business-and-property-owners/electrical-plan-review. **e**

Nansy Hanna P.Eng., is senior director, engineering and regulations, and Steve Habermehl is plan review manager at the Electrical Safety Authority.

Centring EDI in Engineering

Two Supreme Court of Canada decisions have interpreted law societies' public-interest mandate to include equity, diversity and inclusion. What might this mean for engineering regulators?

By Michelle Liu, MASc, P.Eng., JD, LEED-GA, and Vanessa Matta, BASc, EIT

As PEO continues its journey of incorporating equity, diversity and inclusion (EDI) principles into all aspects of its work, we are inviting it and other engineering regulators to consider adopting an interpretation of their public-interest mandate that centres EDI principles. This call for greater EDI consideration follows two 2018 Supreme Court of Canada decisions that interpreted the analogous mandate of two law societies.

The Supreme Court's *Law Society of British Columbia v Trinity Western University*, 2018 SCC 32 and *Trinity Western University v Law Society of Upper Canada*, 2018 SCC 33 (*TWU* decisions) highlighted the case of Trinity Western University (TWU), an evangelical Christian post-secondary institution that required students and faculty to adhere to the Community Covenant Agreement, which prohibited sexual intimacy outside heterosexual marriage. This, among other effects, excluded 2SLGBTQ+ students from the institution.

TWU proposed to establish a law school in 2013. The Federation of Law Societies of Canada (FLSC), charged with assessing new law programs on a national level, approved TWU's proposal. FLSC's approval, however, did not bind provincial law societies, each of which has the autonomy to make its own accreditation decisions. In particular, the Law Society of Upper Canada (now the Law Society of Ontario, or LSO) and the Law Society of British Columbia (LSBC) rejected TWU's proposed law school due to concerns that the Community Covenant Agreement contradicted efforts under their respective public-interest mandate to promote diversity and prevent discrimination within the legal profession.

TWU challenged the decisions of the LSO and LSBC in courts in both jurisdictions. The British Columbia Court of Appeal ruled that the LSBC's decision was unreasonable, as it disproportionately affected religious freedoms protected under the Canadian Charter of Rights and Freedoms. Conversely, the Court of Appeal for Ontario upheld the LSO's decision, finding it struck a reasonable balance between religious freedoms and the statutory mandates of the LSO.

Both matters were escalated to the Supreme Court of Canada. The Supreme Court ruled that the decisions to deny accreditation were justified. The court held that the law societies' refusals represented a proportionate balance between religious freedoms and their obligations to protect the public interest. The court specifically affirmed that "equal access to the legal profession, diversity within the bar and preventing harm to LGBTQ law students were all within the scope of [the law society's] duty to uphold the public interest."

TAKING AN EDI-CENTRED APPROACH

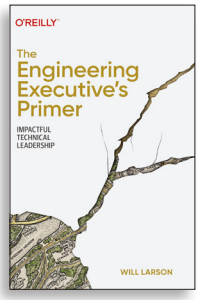
Both the engineering and legal professions operate under similar statutory frameworks that mandate the protection of the public interest. This duty suggests that they both have a responsibility to consider the broader societal impact of their membership, their members' work and beyond. The LSO's refusal to accredit TWU's proposed law school due to discriminatory aspects of the Community Covenant Agreement signals the law societies' progress in fostering access, diversity and non-discrimination in the legal profession. Engineering regulators seem to have been slower to implement EDI-centred approaches in their governance and operations.

From a personal perspective, we decided to study law at different moments in our civil engineering careers because of the micro and macro acts of exclusion we both experienced and observed within engineering. Although law has considered 2SLGBTQ+ rights and experiences as substantive matters in legal cases for over two decades, engineering generally views these considerations as external to the "technical" focus of the profession. For instance, the National Building Code, a key engineering standard, lacks guidance on gender-neutral washroom facilities. Engineers often view user experience considerations as the domain of planners and architects rather than engineers. This perspective likely stems from engineering education's limited focus on diverse user needs, unlike legal education, which tends to address various identities, including sexual orientation and gender, at one point or another. For example, our formal training in engineering never acknowledged the heterogeneity of users of public infrastructure, but just our first few weeks of law school taught us about cases like TWU that seek to protect prospective 2SLGBTQ+ members of the legal profession.

The Supreme Court's ruling on the law societies' public-interest obligations paves the way for engineering regulation. Fostering access for 2SLGBTQ+ persons and persons of other equity-seeking identities to the engineering profession must be of concern to provincial engineering regulators. Adopting an EDI-centred interpretation of their public-interest mandate may be among the ways to address this concern.

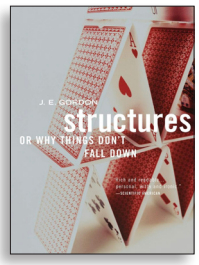
Michelle Liu (they/them), P.Eng., JD, MASc, LEED-GA, is a queer, racialized, non-binary and neurodivergent engineer, lawyer, speaker, policy consultant and researcher. Vanessa Matta (she/her), EIT, BASc, is a civil engineering EIT and a law graduate of the University of Ottawa.

READ



The Engineering Executive's Primer: Impactful Technical Leadership by Will Larson, 2024: New engineering executives go through a steep learning curve, and this book shows you how to meet the challenges: measuring engineering for both engineers and the CEO, company-scoped headcount planning, communicating successfully across a growing organization and figuring out what people actually mean when they keep asking for a "technology strategy."

Raising Engineers: A Founder's Guide to Building a High-Performing Engineering Team by David D. Dettmer, 2022: To build a sustainable business, you need engineers who can execute on common goals. This book helps you create a culture that reflects your business, establish a working process to cultivate a strong team and hire the right people to build impactful products.



Structures: Or Why Things Don't Fall Down by J.E. Gordon, 2003: An informal explanation of the basic forces that hold together the ordinary and essential things of the world, from buildings and bodies to flying aircrafts and eggshells. Gordon includes chapters such as "How to Design a Worm" and "The Advantage of Being a Beam," offering humorous insights in human and natural creation.

The following events may have an in-person and/or online component. See individual websites for details.

ATTEND

AUGUST 6–9
Canadian Conference on Electrical and Computer Engineering, Kingston, ON
https://ccece2024.ieee.ca

AUGUST 30–31
International Conference on Recent Advances in Engineering and Technology, Vancouver, BC
https://iastem.org/Conference/16643/ICRAET

SEPTEMBER 11–15
Conference on Engineering and Sciences, Calgary, AB
https://cices.icmbpsgroup.com

SEPTEMBER 19–21
International Conference on Science, Engineering and Technology, Toronto, ON
https://icset.global-learnconference.com

OCTOBER 6–9
Canadian Chemical Engineering Conference, Toronto, ON
www.cheminst.ca/conference/canadian-chemical-engineering-conference-csche-2024

OCTOBER 29
The Engineering Conference, Windsor, ON
www.engineeringconference.ca/event/engineeringconference2024/home

LISTEN

The Structural Engineering Channel
A podcast that focuses on helping structural engineering professionals stay up to date on technical trends in the field

Circuit Break: A MicroFab Podcast
Circuit Break is a podcast hosted by two electrical engineers, Parker Dillmann and Stephen Kraig. Each week, they explore various engineering topics.

The Engineering Buzzcast
This podcast aims to bridge the gap between students, academics and professionals. Each episode has a range of meaningful conversations with engineers and other interesting individuals, as well helping answer a range of questions from students.

Engineering Success
This podcast is dedicated to the engineering industry and careers in other STEM-related fields. Hosted by Jaemie Hutton, Engineering Success features influential leaders, inspiring engineers and engineering professionals who are changing the perception of engineering.

WATCH

Real Engineering
With more than 4.5 million subscribers, Real Engineering is a YouTube channel that focuses on video about engineering and technology, from renewable energy to military technology.

Summary of Decision and Reasons

In the matter of a complaint regarding the conduct of DERRICK R. CLARK, P.ENG., a member of the Association of Professional Engineers of Ontario.

September 11, 2023

The Discipline Committee considered allegations of professional misconduct referred to it in respect of Mr. Derrick R. Clark, P.Eng., a professional engineer licensed pursuant to the Act.

Mr. Clark filed an Agreed Statement of Facts. Around July 2019, Mr. Clark was retained by 2B Developments to provide a Geotechnical Engineering Report and Ground Water Impact Assessment for a proposed development application on behalf of a company called EAU Structural and Environmental Services Ltd. ("EAU"). Neither Mr. Clark nor EAU held a Certificate of Authorization. 2B Developments submitted the Report with its application for approval to the City of Ottawa. The City found the Report was identical to another Geotechnical Report for a separate application.

The City met with Mr. Clark to discuss the similarities between the reports. Mr. Clark was unable to provide an explanation and expressed his intention to "withdraw" the Report. Subsequently, the City notified the complainant of the similarities. PEO retained an independent expert to review the actions and conduct of Mr. Clark. The Expert Report concluded that the Report signed and sealed by Mr. Clark was deficient and failed to meet the standards of a reasonable and prudent practitioner.

Mr. Clark pled guilty on the agreed-on facts. The Discipline Committee found that Mr. Clark committed acts of professional misconduct in the form of negligence, unprofessional conduct, breach of the Act or Regulations, failure to comply with applicable statutes, regulations, standards, codes, by-laws and rules and failure to safeguard life, health or property contrary to subsections 72(2)(a), (b), (d), (g) and (j) of Regulation 941 of the *Professional Engineers Act*, R.S.O. 1990, c.P.28. A Joint Submission on Penalty and Costs was agreed to in this matter.

The Discipline Committee imposed the penalty as jointly submitted: a reprimand recorded permanently on the Register; the findings and order of the Discipline Committee published in summary form with reference to names; a term, condition and restriction on Mr. Clark's licence prohibiting him from providing geotechnical engineering services; a suspension of Mr. Clark's licence for a period of four (4) months, commencing on the pronouncement of the Discipline Committee's penalty decision or on September 1, 2023, whichever is later; and there shall be no order with respects to costs.

Summary of Decision and Reasons

In the matter of a complaint regarding the conduct of THOMAS A. ETCHES, P.ENG., a member of the Association of Professional Engineers of Ontario, and ETCHES THOMAS A., a holder of a Certificate of Authorization.

December 18, 19, 2023

The Discipline Committee considered allegations of professional misconduct referred to it in respect of the conduct of Mr. Thomas A. Etches, P.Eng., and Etches Thomas A. ("TAEE"), a former holder of a Certificate of Authorization from the Association of Professional Engineers of Ontario. Mr. Etches was responsible for engineering services provided under the Certificate of Authorization.

The parties filed an Agreed Statement of Facts. Etches signed and sealed structural design plans for two residential properties. The Roy Drawings were submitted for the Thornloe project, and the Nebraska Drawings were submitted for the Coleman project, as part of the building permit applications. The Township's Chief Building Official denied the building permit applications for both projects in part for lack of detail on the design plans.

PEO retained an independent expert to review the actions and conduct of Mr. Thomas and TAEE. The independent expert that found the drawings signed and sealed by the parties failed to comply with applicable standards and codes, and the parties failed to meet the standards expected of a reason-

able and prudent practitioner. Mr. Thomas and TAEE pled guilty on the agreed-on facts.

The Discipline Committee found that the parties committed acts of professional misconduct in the form of negligence, unprofessional conduct and failure to comply with applicable standards and codes contrary to subsections 72(2)(a) and (d) of Regulation 941 of the *Professional Engineers Act*, R.S.O. 1990, c. P.28. PEO and parties submitted a Joint Submission as to Penalty and Costs. The Discipline Committee found that the proposed penalty was reasonable and in the public interest, among other things, Mr. Etches' and TAEE's co-operation with PEO and their acceptance of responsibility.

The Discipline Committee imposed the penalty as jointly submitted: a reprimand recorded permanently on the Register; the findings and order of the Discipline Committee to be published in summary form with reference to names; a term, condition and restriction on Mr. Etches' licence and TAEE's Certificate of Authorization prohibiting the practice of professional engineering except under the direct supervision of another professional engineer who shall take professional responsibility for the parties' work by affixing their signature and seal on every final drawing, report or other document prepared; and no order with respect to costs.

Summary of Decision and Reasons

In the matter of a complaint regarding the conduct of TREVOR NORMAN SAWCHYN, P.ENG., a member of the Association of Professional Engineers of Ontario, and SILVER LINING ENGINEERS INC., a holder of a Certificate of Authorization.

October 17, 2023

The Discipline Committee considered allegations of professional misconduct referred to it in respect of the conduct of Mr. Trevor N. Sawchyn, P.Eng., and Silver Lining Engineers Inc. ("SLE"), a former holder of a Certificate of Authorization from the Association of Professional Engineers of Ontario. Mr. Sawchyn was responsible for the engineering services provided under the Certificate of Authorization.

The parties filed an Agreed Statement of Facts. Mr. Sawchyn and SLE prepared and stamped a series of Record of Site Condition ("RSCs") on behalf of different clients, which they submitted to the Ontario Ministry of the Environment and Climate Change ("Ministry") in respect of four properties. The RSC Submissions were repeatedly found to be deficient on review by the Ministry and therefore not accepted for filing by the Ministry.

PEO retained an independent expert to review the conduct actions and conduct of the parties. The Expert Report concluded, among other things, that Mr. Sawchyn did not comply and lacked awareness of O.Reg. 153/04 that failed to meet the standards of a reasonable and prudent practitioner. Additionally, in connection with RSC #44091830 Mr. Sawchyn and SLE were charged in the Ontario Court of Justice with submitting false or misleading information to the Ministry. Mr. Sawchyn pled guilty to that offence and was ordered to pay a fine of $5,000.

Mr. Sawchyn and SLE pled guilty on the agreed-on facts. The Discipline Committee found that Mr. Sawchyn and SLE committed acts of professional misconduct in the form of negligence, unprofessional conduct, failure to safeguard life, health and property and failure to comply with Ontario Regulation 153/04. Subsequently, the Discipline Committee found Mr. Sawchyn guilty of an offence relevant to the sustainability to practise and undertook work he was not qualified in. The parties submitted a Joint Submission as to Penalty and Costs. The Discipline Committee found that the proposed penalty was reasonable and in the public interest, considering among other things, Mr. Sawchyn's co-operation with PEO and his lack of prior disciplinary history.

The Discipline Committee imposed the penalty as jointly submitted: a reprimand recorded permanently on the Register; the findings and order of the Discipline Committee published in summary form with reference to names; Mr. Sawchyn's licence and SLE's Certificate of Authorization shall be suspended for a period of four (4) months commencing October 30, 2023; a term, condition and restriction shall be placed on Mr. Sawchyn's licence and SLE's Certificate of Authorization prohibiting them from providing environmental engineering services including Environmental Site Assessments and Records of Site Conditions; and there shall be no order with respect to costs.

Summary of Decision and Reasons

In the matter of a complaint regarding the conduct of LUDMILA (LUCY) SHAW, P.ENG., a member of the Association of Professional Engineers of Ontario, and LKS CONSULTING INC., a holder of a Certificate of Authorization.

July 24, 2023

The Discipline Committee considered allegations of professional misconduct referred to it in respect of the conduct of Ms. Ludmila (Lucy) Shaw, P.Eng., and LKS Consulting Inc. ("LKS"), a former holder of a Certificate of Authorization from the Association of Professional Engineers of Ontario. Ms. Shaw was responsible for the engineering services provided under the Certificate of Authorization.

The parties filed an Agreed Statement of Facts. Ms. Shaw and LKS were retained to design a septic system for a proposed new residential property. LKS issued a number of septic system drawings and calculation prepared, signed and sealed by Ms. Shaw. PEO retained an independent expert that found that the drawings and calculations to be deficient and failed to comply with Part 8 of the Ontario Building Code, O. Reg. 332/12 for several reasons. The Discipline Committee acknowledged no work based on the flawed drawings and calculations was completed, as they were not accepted by the municipal authorities for issuing a building permit. However, Ms. Shaw signed and sealed an undersized and inadequate septic system which, if installed as designed, could have led to health and environmental safety concerns.

Ms. Shaw and LKS pled guilty on the agreed-on facts. The Discipline Committee found that the parties committed acts of professional misconduct in the form of negligence, unprofessional conduct and failure to comply with applicable sections of the Ontario Building Code and wastewater engineering standards contrary to subsections 72(2)(a), (b), (d) and (j) of Regulation 941 of the *Professional Engineers Act*. PEO and parties submitted a Joint Submission as to Penalty and Costs. The Discipline Committee found that the proposed penalty was reasonable and in the public interest, considering among other things, Ms. Shaw's co-operation with PEO, her acceptance of responsibility and her prior disciplinary history.

The Discipline Committee imposed the penalty as jointly submitted: a reprimand recorded permanently on the Register; the findings and order of the Discipline Committee published in summary form with reference to names; a suspension of Ms. Shaw's licence and LKS's Certificate of Authorization for a period of three (3) months, commencing from the date of pronouncement of the Discipline Committee's decision; a term, condition and restriction on Ms. Shaw's licence and LKS's Certificate of Authorization prohibiting them from providing environmental engineering services, including onsite wastewater (septic) systems. If Ms. Shaw demonstrates her competence in environmental engineering by successfully passing the following examination administered by PEO, namely, 18-Env-A4 (Water and Wastewater Engineering), this term, condition or restriction shall be lifted; and there shall be no order with respect to costs.

Summary of Decision and Reasons

In the matter of a complaint regarding the conduct of JAVIER A. ZULETA CANIDO, P.ENG., a member of the Association of Professional Engineers of Ontario, and JAZ PARAMOUNT ENGINEERING CORP., a holder of a Certificate of Authorization.

December 14, 2023

The Discipline Committee considered allegations of professional misconduct referred to it in respect of the conduct of Mr. Javier A. Zuleta Canido, P.Eng., and JAZ Paramount Engineering Corp. ("JAZ"), a former holder of a Certificate of Authorization from the Association of Professional Engineers of Ontario. Mr. Canido was responsible for the engineering services provided under the Certificate of Authorization.

The parties filed an Agreed Statement of Facts. A company had performed waterproofing, installed weeping tiles and tied in new weeping tiles to a sump pump at a residential property in the City of Hamilton. The property had been backfilled without a municipal inspection. On being notified by the City of the need to provide further information for permit purposes, the company retained JAZ to review photographs of its work and provide a general conformance report to the City.

Mr. Canido signed and sealed a report purporting to verify that waterproofing to foundation wall was performed correctly. The JAZ Report was subsequently provided to the City to close the permit. The JAZ Report was found to be deficient, requiring a second engineer to be retained. The JAZ Report suggested that a site inspection had been performed when no such inspection had occurred and failed to state that it relied on information other than from the site inspection. PEO retained an independent expert that found Mr. Canido and JAZ failed to meet the standards of a reasonable and prudent practitioner.

Mr. Canido and JAZ pled guilty on the agreed-on facts. The Discipline Committee found that Mr. Canido and JAZ committed acts of professional misconduct in the form of negligence and unprofessional conduct contrary to subsections 72(2)(a) and 72(2)(j) of Regulation 941 of the *Professional Engineers Act*, R.S.O. 1990, c. P.28. The parties submitted a Joint Submission as to Penalty and Costs. The Discipline Committee found that the proposed penalty was reasonable and in the public interest, considering, among other things, Mr. Canido's co-operation with PEO and his acceptance of responsibility.

The Discipline Committee imposed the penalty as jointly submitted: a reprimand recorded permanently on the Register; the findings and order of the Discipline Committee published in summary form with reference to names; a fine in the amount of $1,000 to be paid within thirty (30) days of pronouncement of the decision; a term, condition and restriction on Mr. Canido's licence prohibiting him from practising professional engineering except under the direct supervision of another professional engineer who shall take professional responsibility for Mr. Canido's work by affixing their signature and seal on every final drawing, report or other document prepared by Mr. Canido, which shall be suspended for a period of fourteen (14) months from the date of the decision; if Mr. Canido successfully completes the Examinations at any time before or after the fourteen-month period, this restriction shall be suspended indefinitely; and there shall be no order with respect to costs.

Answering Your Questions About CPD

We answer some of your questions about completing PEO's mandatory continuing professional development program.

By Nicole Axworthy

Earlier this year, PEO launched improvements to its mandatory continuing professional development (CPD) program, PEAK, including program exemptions and expanded applicable learning activities (see "2024 PEAK Updates, Explained," *Engineering Dimensions*, Winter 2024, p. 28). As new updates are rolled out, the PEAK team continues to receive questions about licence holders' obligations. Here we answer some frequently asked questions to help you better understand what you are required to do, specifically when it comes to completing CPD hours.

Do I need to do PEAK?

Most PEO professional engineers and limited licence holders must complete CPD every year. The specific requirements depend on a licence holder's practice and licence statuses. Practising individuals must complete all three elements of the program: the Practice Evaluation, Professional Practice Module and Continuing Professional Development Report. Licence holders who have a "not practising" practice status and have opted for a "not currently eligible to practise" licence status would still need to complete the first two elements of the program: the Practice Evaluation and Professional Practice Module. "In some instances, a non-practising licence holder who is not subject to any practice restrictions could choose to complete the program as a practising licence holder by completing all three elements of the program," notes Nathalie Muzinga, PEO's professional development coordinator.

PEAK does not apply to new or reinstated P.Engs and limited licence holders in their first calendar year of licensure. And temporary licence holders, fee remission enrollees (including enrolled retired engineers), engineering interns and PEO applicants are exempt from all requirements under the PEAK program.

How many CPD hours must I complete?

The number of CPD hours you must complete depends on the number of CPD hours assigned to you following your Practice Evaluation. You can be assigned a maximum personalized target of up to 30 hours per year, but you can report more CPD hours than your target. CPD hours should be reported on a one-to-one basis, meaning that the actual time spent on an admissible CPD learning activity is reported. "Licence holders can report their CPD hours via the PEO online portal and by navigating to the PEAK tab," Muzinga explains. "There, they will be able add CPD activities separately with any further information they would like to provide regarding the activity."

What CPD activities are admissible?

A CPD activity is admissible for the PEAK program if it addresses knowledge of the responsibilities of professional engineers, understanding of pertinent codes and standards and knowledge of best practices in acts of professional engineering—all of which must be relevant to your practice areas. This year, CPD admissibility criteria was expanded to include supplementary learning (such as project management, business management, communications, health and safety, etc.) that supports core engineering practice activities. "While supplementary learning can support a licence holder's practice and help satisfy CPD target hours, it is required that 80 per cent of your hours must come from core engineering learning," Muzinga notes.

The PEAK program accepts all learning formats. These include admissible activities that are free or paid, self-paced or instructor-led, delivered virtually or in person or in a hybrid manner, as well as events that are held locally or overseas. "Ultimately, it is up to the licence holder to determine whether an activity is suitable based on the guidelines provided on the PEAK website," Muzinga adds. "This could be studying or reading, attending seminars and webinars or participating in technical mentoring, to name a few."

What information do I need to provide for the CPD report?

The CPD report form contains fields such as area of learning (i.e. priority or supplemental), activity name, activity duration and learning category (i.e formal/informal or contributions to knowledge) and format. Additional notes also allow you to provide any supporting details and notes about your CPD activity, such as the provider's name, conference name, reading series or URL to the learning event.

Can I declare CPD activities I completed last year?

Currently, the program will allow you to attest to your 2023 CPD activities you completed last year only if you still have a CPD reporting balance for 2023. Once you have attested to your CPD requirements for last year, you will have the option to provide information about the CPD activity in your own words, not exceeding 500 words.

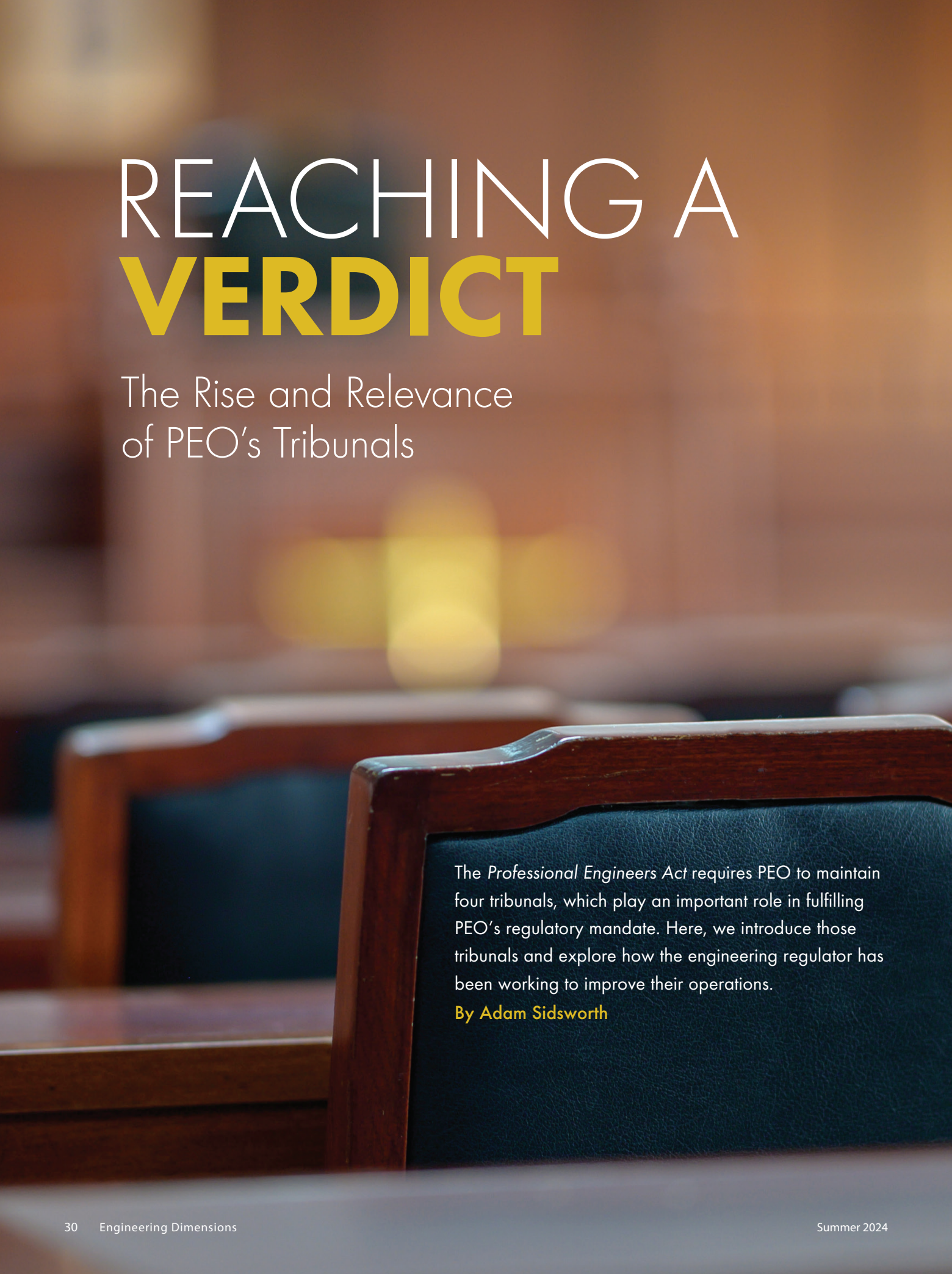
Can I declare CPD activities I completed this year in my CPD report for next year?

No, the program will not allow you to complete CPD activities this year and carry forward any portion to a future year. That's because you will be engaging in CPD every year on a continuous basis. "The PEAK program runs on an annual basis, from January to December," Muzinga explains. "The purpose of mandatory CPD is to help engineers maintain their ability to practise competently and ethically, which steers the right professional behaviors among engineers and complies with public calls and expectations for mandatory CPD for Ontario engineers." **e**

More questions? Contact PEO's PEAK team by email at PEOpeak@peo.on.ca.

REACHING A **VERDICT**

The Rise and Relevance of PEO's Tribunals



The *Professional Engineers Act* requires PEO to maintain four tribunals, which play an important role in fulfilling PEO's regulatory mandate. Here, we introduce those tribunals and explore how the engineering regulator has been working to improve their operations.

By Adam Sidsworth

IN RECENT YEARS, much of PEO's internal efforts have been focused on overhauling its licensing process. The changes culminated in May 2023, when PEO became the first Ontario regulator to remove Canadian professional experience from its licensing requirements—a move that then-Minister of Labour, Immigration, Training and Skills Development Monte McNaughton called "a game changer." At the same time, the regulator introduced a standardized technical exam program for internationally trained applicants and a competency-based assessment model for evaluating candidates' experience, along with a commitment to make a licensing decision for most applicants within a six-month timeframe.

While these changes are significant in terms of standardizing and expediting the licensing process to better serve prospective licence holders, PEO's work in meeting its regulatory mandate includes various other equally important efforts—some more visible than others. One such role is ensuring the public is protected and that practitioners and companies providing engineering services uphold a strict code of professional ethics and conduct. Among other regulatory activities, PEO does this by conducting investigations and disciplinary hearings.

The result of some of this work can be seen in the Gazette section of *Engineering Dimensions*, also known as "the blue pages," where PEO publishes its disciplinary decisions. Behind the scenes, however, lies a complex system requiring the efforts of a dedicated team of PEO staffers and volunteers.

PEO's FOUR TRIBUNALS

PEO has a 102-year-old history, but it wasn't until the 1984 amendments to the *Professional Engineers Act* (PEA) that PEO's tribunals were established, effectively removing the role of Council in disciplining licence holders who were found guilty of professional misconduct or incompetence. The PEA amendments also introduced the Complaints Committee (COC), which oversees complaints brought to PEO's attention and decides which ones warrant discipline; and the Discipline Committee (DIC), a formalized tribunal analogous to a court of law.

When it comes to tribunals, most Ontarians would likely think of the Landlord and Tenant Board, Ontario Parole Board or the Human Rights Tribunal—three of the 13 adjudicative tribunals clustered under Tribunals Ontario. These tribunals are governed under their own legislation as well as the *Adjudicative Tribunals Accountability, Governance and Appointments Act* and *Statutory Powers and Procedures Act*. Tribunals Ontario annually resolves nearly 100,000 issues.

However, PEO's tribunals derive their authority from the PEA, which allows PEO to independently run its tribunals with their own rules and procedures while supporting PEO's mandate. Let us introduce you to PEO's four tribunals.

1. **Discipline Committee**
   The DIC holds hearings to determine allegations of professional misconduct or incompetence against a holder of a licence or certificate of authorization (C of A). Most licence holders reach the DIC via PEO's complaints process (see "What's in a Complaint?" *Engineering Dimensions*, July/August 2020, p. 26). The PEA also anticipates that in rare cases Council or the Executive Committee may refer a matter to the DIC.

   The DIC is typically comprised of a mix of licence holders and lay adjudicators; a typical discipline panel has two engineers and a lawyer. Although the PEA requires a member of Council to be on the DIC and a minimum of three people to have at least 10 years of engineering experience, in practice all engineers on the committee have 10 years of experience.

   Disciplinary hearings are open to the public and follow similar rules to court proceedings. A licence or C of A holder facing a disciplinary hearing is entitled to disclosure of the evidence against them, and the PEA makes it possible to appeal to the Ontario Divisional Court.

2. **Complaints Review Councillor**
   The Complaints Review Councillor (CRC) reviews the treatment of a complaint by the COC. The COC has the power to forward the complaint to the DIC for a disciplinary hearing, not forward it at all or deal with the matter how it sees fit. Of the 90 complaints filed in 2023, only 11 were referred to the DIC.

   The current CRC, Fiona Wang, LLB, is a lawyer. Although the decision of the COC is final, a complainant can ask the CRC to investigate should the COC not address the complaint within 90 days or if the complainant is not satisfied with the COC's decision to not refer to discipline. The CRC can also initiate a review on their own. They are entitled to the full cooperation of PEO staff and Council. Should the CRC decide to investigate how a matter has been handled, they will eventually submit a report to Council, the COC and possibly to the attorney general, who is the cabinet minister responsible for PEO.

3. **Registration Committee**
   A Registration Committee (REC) hearing may be triggered by PEO's registrar's decision to refuse to issue a licence or to suspend or revoke a licence or C of A. A candidate for licensure or a licence holder has 30 days to request a hearing by the REC, which then has 30 days to schedule a

hearing. The REC has the power to order the registrar to issue the licence or C of A, uphold the registrar's decision to not issue the licence or add a scope of reference to the licence. The REC hearing is not an appeal; rather it is what the legal profession calls a "hearing de novo."

The parties in an REC hearing are entitled to examine the evidence, and appeals to the Divisional Court are provided for by the legislation. Members of the REC are appointed by Council and in some cases are confirmed by the attorney general.

4. **Fees Mediation Committee**
The Fees Mediation Committee (FMC) was originally established to deal with fee (or contract) disputes between licence and C of A holders and their clients. The FMC can mediate or arbitrate fees disputes between providers of engineering services and their clients in lieu of legal action taken through the court system. A decision of the FMC is final.

Because the FMC needs the written consent of all parties involved, the FMC has historically been seldomly used. Additionally, the FMC has been largely supplanted by amendments to the *Construction Act*, which allows the Authorized Nominating Authority to adjudicate fees in the construction sector.

ENGINEERS AS TRAINED ADJUDICATORS

PEO's tribunals use adjudicators who are specifically trained for their role. "PEO adjudicators typically take a five-day course jointly offered by Osgoode Hall Law School and the Society of Ontario Adjudicators and Regulators, which PEO will pay for," notes Nedra Brown, LLB, legal counsel and manager, tribunals at PEO. Brown points out that many DIC and REC adjudicators have been on their respective tribunals for many years and build up the appropriate experience to adjudicate effective and sound decisions in complex cases. "We don't worry about their engineering speciality," says Brown. "They have to attend training. You never get to be a chair of a panel until you've been a member of a panel. We have graduated steps."

Of PEO's four tribunals, the DIC is the busiest, although Brown suspects that the REC could have a significant uptake in cases due to the 2023 licensing changes, which sees applicants' engineering experience now measured by PEO's new competency-based assessment. Additionally, PEO has developed its Inventory Management Plan, which aims to reduce the backlog of almost 25,000 applications in PEO's legacy application process awaiting a licensing decision.

"We want to be a right-touch regulator, and we want our tribunals to meet these criteria," observes Brown, referring to the concept that a professional regulator should regulate only enough to be effective in its regulatory role. "We want to be an example. We have new rules of procedure for the Discipline Committee and the Registration Committee that have updated the rules for the tribunals to make the process more efficient and a new handbook for self-represented parties, meaning that if [a DIC or REC participant] is self-represented, they have a tool to help them understand the process."

IMPROVING TRIBUNALS OPERATIONS

As PEO strives to maintain well-functioning and transparent tribunals, it must also consider feedback received from an external regulatory review PEO voluntarily underwent in 2019. The experts measured PEO in 22 regulatory standards in three areas (licensing and registration; complaints, discipline, compliance and enforcement; and professional standards and guidance). And although

Opposite page: PEO's headquarters in Toronto, ON, include a tribunals area with one room specifically for disciplinary hearings.

PEO was largely taken to task in its licensing function, passing just one out of seven standards, other areas also needed improvement, including PEO's tribunals, which are vitally important to help PEO carry out its mandate.

Some of the notable comments about the REC and DIC include:

- The REC conducted reviews of applicants receiving a notice to refuse without at least one person on the panel who was reflective of the applicant's gender, race or background;
- The DIC did not have concrete criteria to withhold names in the Gazette section of *Engineering Dimensions*, even though nearly half of the decisions in 2018 and early 2019 withheld names. (Brown also observes that a 2017 PEA amendment now requires all DIC convictions to be recorded in the public directory, so not disclosing the person's name in this magazine is now effectively meaningless);
- DIC decisions were hard to find on PEO's website and inconsistently referred to as either "decisions and reasons" or "summaries of decisions and reasons," and PEO needed a suitable platform to publish DIC decisions;
- A member of Council is required to sit on the DIC, conceivably impacting the perception of adjudicative independence from PEO's governing body; and
- DIC decisions could be seen by some as putting the licence holder's interest before public safety, as it was rare for a licence to be revoked as a result of disciplinary proceedings.

PEO developed a high-level action plan in late 2019 to address the 15 recommendations in the external review, including two that address tribunals. The experts' 12th recommendation was to advise PEO not to appoint members of Council to the DIC (and the COC, which is not a tribunal), while their 14th recommendation was to work with the province to update the PEA to develop modern processes for a number of activities, including the DIC.

Dan Abrahams, LLB, PEO's vice president, policy and governance and chief legal officer, notes that these changes are a possibility if the province agrees to act. "Consistent with the Council-approved governance changes made in 2020–2022, as well as the 2019 external regulatory review, it is conceivable that in the future member representation on the DIC will no longer include an elected councillor," Abrahams observes. "A number of other regulators—and all other PEO statutory committees—do not mandate the appointment of a board member. However, any change in the mandatory composition of the DIC would require an act change, to which the government has not yet committed."

Brown notes that PEO has been actively adopting regulatory best practices for the DIC and REC, many of which were outlined in the external review. In addition to the updated rules and guides for the DIC and REC and mandatory training for DIC members, PEO has improved its recruitment process for both the DIC and REC, with both increasingly representative of the licence holders or applicants facing a hearing. "For the first time at PEO, there's going to be an all-female discipline panel hearing," observes Brown. "I shouldn't be so happy about it, but I am because it took a lot of time to get to this place. And the chair selected them randomly. He didn't even think about it."

Additionally, all DIC decisions are now uploaded to the Canadian Legal Information Institute (CanLII) database, which carries tribunal decisions from many Ontario and pan-Canadian regulators as well as all levels of court throughout the country. They also can be accessed more easily on PEO's website and go through a more thorough editing process to assure decisions are more clearly communicated. Additionally, PEO may consider employing decision writers to support hearing panels in the future.

Despite some of the feedback being addressed by the 2019 external review and continuing improvement of the DIC and REC, Brown observes that their members competently and ably carry out their tribunal mandate. "PEO's committee members care deeply about their service to PEO and the public interest," says Brown. "They are committed to upholding the reputation of the engineering profession." Indeed, with the work of a competent tribunals who continue to evolve the right-touch regulatory practices, PEO is meeting its mission to regulate the practice of professional engineering in Ontario. **e**

SHIFTING GEARS, FINDING SOLUTIONS

PEO President Gregory P. Wowchuk is utilizing his experience in politics and commitment to democracy to drive progress on defining the engineering regulator's long-term vision.

BY NATALYA ANDERSON
PHOTOGRAPHY BY ADAM SIDSWORTH

Analyzing, pulling, modifying and rebuilding. Whether it's tackling the reshaping of a classic car engine or approaching his term as PEO's Council president for the 2024–2025 term, Gregory P. Wowchuk, P.Eng., FEC, is committed to shifting old gears into modern, purposeful directions. Wowchuk's history illuminates his support of the engineering profession's self-regulation model, and his deep belief in grassroots democracy is part of his very being.

A dual technician and engineer, Wowchuk is no stranger to a few U-turns when his desire for results has him reaching a dead-end. "I was always a creative—and practical—person," says Wowchuk. "I would not have been happy as a scientist. While, of course, I studied physics, chemistry, mechanics, advanced mathematics, I preferred working more at the tail end of development, where I could see—and de-bug—the finished product."

In this sense, Wowchuk, a longtime PEO volunteer, is heading Council during the tail end of the regulator's years-long enterprise-wide transformation following an external regulatory performance review in 2019. He acknowledges the impact made by like-minded past presidents, including his immediate predecessor, Roydon Fraser, PhD, P.Eng., FEC, and he intends to continue the momentum. This entails utilizing his skills as an engineer and communicator to achieve the goal of defining PEO's future vision while continuing to ensure excellence in the practice of professional engineering.

Gregory P. Wowchuk spends time in his garage, where he is rebuilding a Ford V8 engine.


INTAKE OPENING
EXHAUST CLOSING
INTAKE CLOSING
EXHAUST OPENING
CRANE Cams

President Wowchuk, an avid car enthusiast, shows his collection of Ontario licence plates from the mid-1900s.

A PROBLEM-SOLVER AT HEART

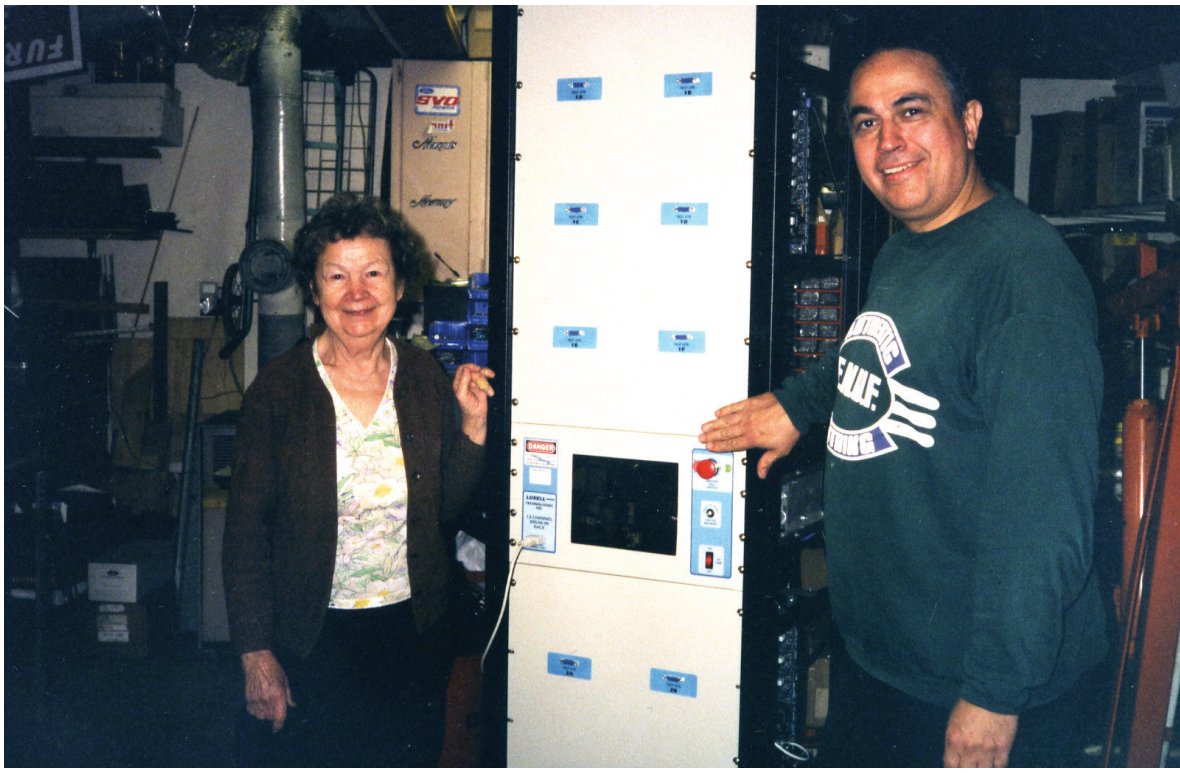
"One of my themes is engineers as fixers," reflects Wowchuk. "We do not simply design products, structures and services. Very often, we are called upon to repair or modify what other engineers created. While technicians may understand how something is put together and can restore it, engineers as fixers have a greater comprehension of how and why the original designer acted and can implement a better, longer-lasting repair."

Wowchuk's sense of creativity and logic merged early on in his life and was in large part influenced by his father, who was a mentor and champion to his young son. "My father had only a Grade 8 education, but [he] was also a brilliant and creative problem-solver," recalls Wowchuk. "He designed and built the family home, which still stands in central Manitoba. Overseas in [the Second World War], he was held back from the frontlines, keeping the equipment running and feeding his squad. He always did all his own automotive repairs, with me occasionally looking over his shoulder."

At 10 years old, Wowchuk's interest in automotive engineering was ignited, and he began following his passion by designing and building pushcarts with trailers. He remembers providing his neighbourhood friends with his stealthy creations and that they all took rides on these makeshift vehicles—which even came equipped with rudimentary brakes—while other kids pushed them forward with poles.

Over the years, Wowchuk's childhood hobbies turned to a way of life, and he soon found himself immersed in the engineering education world. He pursued a BASc degree from the University of Windsor and a diploma in electrical technology from Ryerson Polytechnical Institute (now Toronto Metropolitan University, or TMU). While in Windsor, Wowchuk won second prize in the entrepreneurial design category in the 1982 Ontario Engineering Design Competition for his microprocessor-based grain-moisture analyzer. Never one to tire of expanding his horizons, Wowchuk also studied psychology and communications at the University of Toronto and TMU.

He began his engineering career at Spar Aerospace Limited in their defence systems division. He is now president of electronics consulting company Wheatfield Instrument Corporation Ltd. and a special advisor to non-profit organization Dynamic Solutions Institute of Applied Knowledge Inc. in Detroit, MI. Of the dozens of electronic projects Wowchuk has worked on during his career, two stand out in his memory. One involved creating an alarm box for Prism Systems and Northern Telecom which, when tested for electromagnetic compatibility, astonished the test engineer because they could not measure its emissions. Another project—which Wowchuk considers the pinnacle of his career—was a 12-station, high-voltage, microcontroller-based test panel. "Not only did it perform its function, but it solved a 'shoot-through' problem which was causing overheating in the previous model," Wowchuk shares.



Gregory P. Wowchuk and his mother, Mary Wowchuk, stand beside the high-voltage, microcontroller-based test panel that was a highlight of his career. Photo: Gregory P. Wowchuk

In his downtime, Wowchuk continues to indulge in pulling and reworking classic car engines. He also boasts a black belt in traditional Japanese karate-do. "The intense concentration and focus required for kata, the form, practised alone by an individual, gives lifelong benefit," he says. He believes that personal projects are a logical tributary of every successful engineer.

ENGINEERS IN GOVERNMENT

Wowchuk's interest in automotive engineering at a young age coincided with his growing interest in politics. "I've been active in party politics since I was 17," says Wowchuk. "I was always on riding party executives, where I learned how meetings were run with 'rules of order,' resolutions made and minutes kept."

While studying at TMU, Wowchuk was elected to the board of the Students' Union, serving as director of communications. Later, he organized and worked with neighbourhood citizens' groups on issues involving municipal planning, and he even appeared before the former Ontario Municipal Board on three occasions to fight "inappropriate" urban development, leading one case in 2005 against four condo towers at Sherway Gardens in Etobicoke, ON. "Notwithstanding a solid case based on violations of the official plan by the developer, the project was approved," Wowchuk explains.

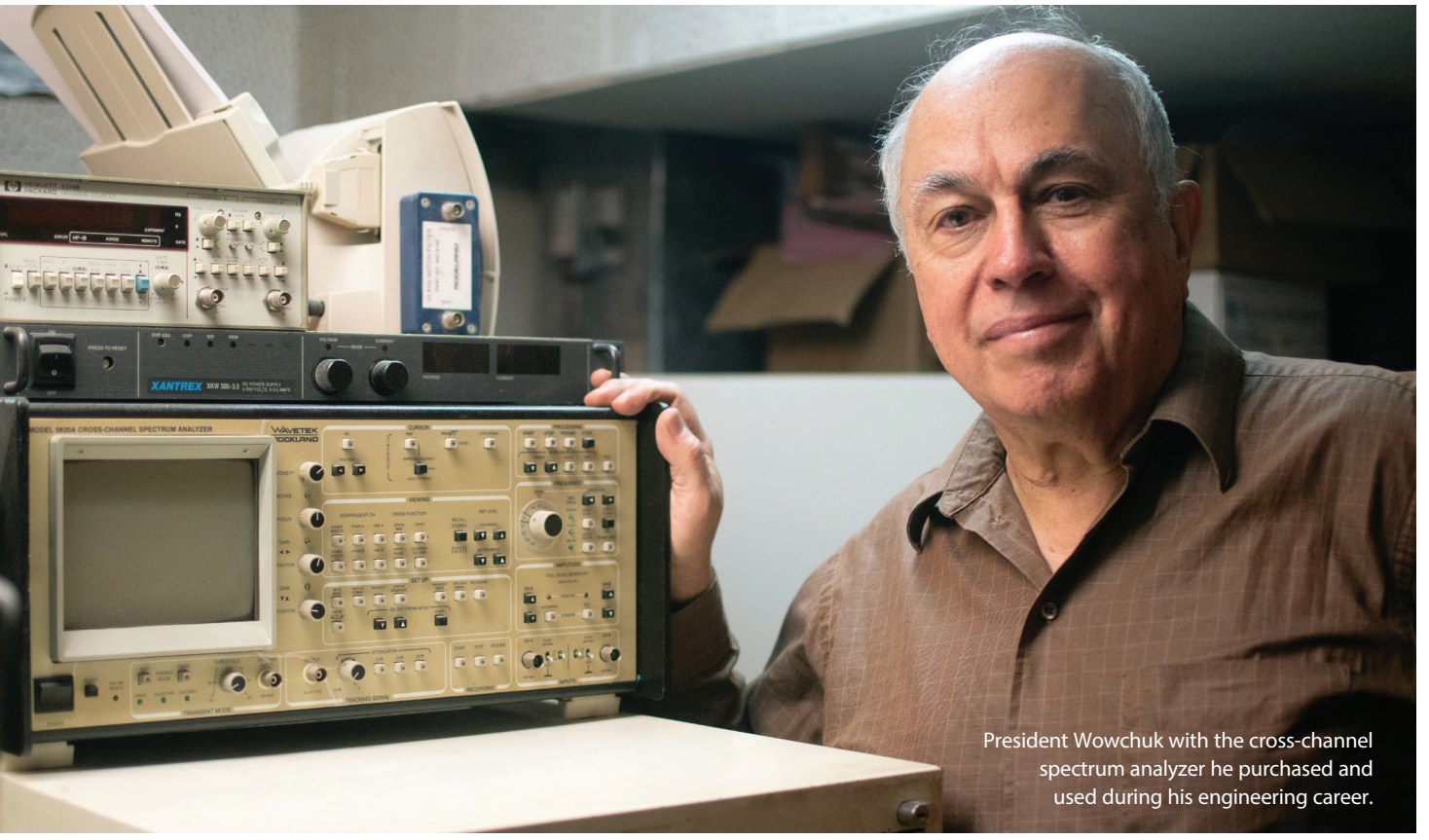
In 2003 and 2006, Wowchuk was a candidate for Toronto City Council, Ward 6, where he emphasized his belief that civic infrastructure continues to be a major issue for municipalities and could have the potential to create greater employment for professional engineers. He was also provincial returning officer for Etobicoke-Lakeshore from 1998 to 2003. Beyond politics, Wowchuk's service spirit extended to volunteer roles such as president of the Etobicoke Historical Society and editor of its newsletter. Most recently, he served on an electronics reliability committee of the Society of Automotive Engineers.

Ever centred in his political work, which he says he has always felt was an extension of his engineering career, Wowchuk has expressed the need for engineers in government and policymaking. He leans firmly into why this is of great significance: "First of all, engineers' problem-solving ability and attention to detail are essential in a rapidly changing world," says Wowchuk. "While there remains much debate by psychologists over the significance of left brain versus right brain, it seems engineers are more the former, dominated by logic; and lawyers more the latter, adept at feelings and communications. To me, many decisions made by judges—and governments—defy rationality and consistency. That being said, engineers need to learn to do more right-brain if they are to be successful in politics."

Wowchuk further argues that engineers are as straightforward as they are complex in their thinking, thereby making the perfect candidates for government representation. "The other trait engineers have is practicality," he explains. "Much policy and law-making—while appearing virtuous and productive—fall short once they are implemented…Engineers have the tools to examine many alternatives and outcomes and zero in on the optimum choice."

ADVOCATING FOR THE PROFESSION

For engineers to advocate for their profession, Wowchuk feels that their presence as policymakers is integral, now more than ever. "Another very important reason for engineers to get involved in government and policymaking is that their profession can be greatly affected by decisions others have made," he adds. Wowchuk believes that the greatest hit to Canadian engineering took place when the Canada-US Free Trade Agreement was signed in 1988. "The ink was hardly dry on that agreement when almost all of my industrial clients closed their Canadian plants," he says. "If you don't manufacture product here, you don't need engineers to design it."



President Wowchuk with the cross-channel spectrum analyzer he purchased and used during his engineering career.

"ENGINEERS TEND TO VIEW THINGS AS BLACK AND WHITE, REDUCIBLE TO MATHEMATICAL EQUATIONS, YET THE WORLD ACTUALLY IS SHADES OF GREY."
—GREGORY P. WOWCHUK

That's just barely thrusting the ignition, however, as Wowchuk also says that a successful career in the profession must be driven by self-awareness and a desire to interact with other drivers on the course to success. He is a strong supporter of the idea that the profession is in great need for soft skills in engineering practice.

"Employers frequently complain that engineers lack the soft skills needed in the workplace," says Wowchuk. "Sitting at a computer workstation all day is not sufficient to create great products and services. One must interact with others in order to communicate, consult and collaborate."

He traces his keen observations to lessons he learned in basic, early schooling, when he felt free to explore the middle ground when developing problem-solving techniques. "In public school, I received intensive teaching in grammar, punctuation, parsing, even etymology, which is understanding the roots of words in order to expand comprehension," recalls Wowchuk. "In university, I took two courses in advanced communications. These skills proved very important later when interacting with managers, co-workers and clients."

"To me, proficiency in the local language of practice is absolutely as important as technical skill," Wowchuk adds. "Engineers tend to view things as black and white, reducible to mathematical equations, yet the world actually is shades of grey."

If the concept of solving problems is applied to the profession, Wowchuk came to sense there was a time and place for self-regulation, particularly as he has seen it bestowed on Canadian professions. He declares openly that, occasionally, governments make absolutely brilliant, visionary decisions. Professional self-regulation is one of them and is somewhat unique to Canada. "The government has enough on its plate as it is and is only too happy to offload regulation of professions—as long as the public interest is preserved," Wowchuk says.

MAKING AN IMPACT AT PEO

Wowchuk's sense of duty to the engineering profession was recently recognized with a 10-year PEO volunteer service pin and the Fellow of Engineers Canada designation. His notable contributions include serving as president-elect on PEO Council for 2023–2024, elected vice president for 2022–2023 and previously councillor-at-large for 2018–2020. Looking back a bit further, Wowchuk served as a lieutenant governor-in-council appointed councillor from

1997 to 2000. Additionally, in the late 1990s, he served as chair of PEO's former Communications Committee.

Wowchuk's commitment to grassroots democracy also goes back to the late 1990s, when he co-founded Engineers for Engineers under the leadership of Pat Quinn, P.Eng., FEC, who later became PEO's president, as well as Ontario Engineers for Democracy on Council in 2011 and Ontario Engineers for Grassroots Democracy in 2017.

Now as PEO president, Wowchuk sees the horizon clearly as he drives smoothly towards his latest lane change, citing several items he's excited to approach in his new role. Notably, his focus will be on continuing the work of Past President Roydon Fraser. "I said before that we reach new heights when we stand on the shoulders of giants," says Wowchuk. "Dr. Roydon Fraser, as PEO president [before me], had us embark on a path of defining who we are and where we should be heading. That vision is being driven by the grassroots, from the ground up, not the top down. I intend to continue on this path."

Wowchuk also wants to further engage PEO chapters when it comes to the work of Council, improve communication with them and clarify their role within the regulator. "I consider chapters to be the 'eyes, ears and voice' of PEO in all corners of the province," says Wowchuk. "In the past, geography and limited communications channels made this essential, but I would argue that it is still an important function. Distributed systems tend to perform better than centralized systems, because centralized systems tend to homogenize both incoming and outgoing information."

Wowchuk is steadfast and fearlessly honest about his intentions, and he continuously yields to what he sees as the needs of all generations of licence holders as well as upcoming professionals who might need mentoring and guidance at the start of their journey. "I want true equality and fair accessibility to our profession," he says. "PEO should not be used as a vehicle for advancing personal political issues or pet projects. We are here to ensure excellence in the practice of professional engineering. Nothing more, nothing less."

Like multi-generational professionals in the industry and the work of PEO as a regulator, no engineer is truly in the driver's seat on their own. Any new model's sleek design and gauge of speed is reliant on the blueprints of those that came before it. "While today's cars truly are a marvel of engineering design," muses Wowchuk, "with advanced electronics and mechanical design, only when you take apart an older vehicle can you appreciate the brilliant design done in an era when engineers relied on slide rules. I am in awe." **e**

Gregory P. Wowchuk stands on the Humber Bay Arch Bridge in front of one of the first condo towers to go up along Toronto's lakeshore.

INTRODUCING PEO COUNCIL 2024–2025

EXECUTIVE COMMITTEE

Gregory P. Wowchuk, P.Eng., FEC
President

Gregory P. Wowchuk holds a BASc degree from the University of Windsor and a diploma in electrical technology from the former Ryerson Polytechnical Institute (now Toronto Metropolitan University), reflecting his affinity for both the theoretical and the practical. Along with his engineering education, Wowchuk has also taken courses in psychology and effective communication.

He won second prize in the 1982 Ontario Engineering Design Competition. Wowchuk began his career in the defence systems division of Spar Aerospace Limited, and he is currently president of Wheatfield Instrument Corporation Ltd. and a special advisor to Dynamic Solutions Institute of Applied Knowledge Inc. in Detroit, MI.

He has served as PEO councillor-at-large (2018–2020), a lieutenant governor-in-council appointed councillor (1997–2000) and chair of the former Communications Committee (1997–1999). He was also a co-founder of Engineers for Engineers (1997), Ontario Engineers for Democracy on Council (2011) and Ontario Engineers for Grassroots Democracy (2017). He is an ardent supporter of the self-regulation model of our profession and speaks often against bureaucracy and waste. His commitment to grassroots democracy spans several decades: He has run for Toronto City Council (2003 and 2006), served as a provincial returning officer for Etobicoke-Lakeshore (1998–2003) and has co-founded several citizens' advocacy groups. He was also president of the Etobicoke Historical Society (2004–2007).

Wowchuk holds a black belt in traditional Japanese karate, is an aficionado of old cars and enjoys pulling, modifying and rebuilding their engines. Wowchuk views the role of PEO Council as serving the profession and protecting the public interest. He firmly believes these two functions are not mutually exclusive. **gwowchuk@peo.on.ca**

Roydon Fraser, PhD, P.Eng., FEC
Past President

Roydon Fraser received a bachelor's degree in engineering physics at Queen's University and his master's degree and doctorate in mechanical and aerospace engineering from Princeton University. He is a professor in the mechanical and mechatronics engineering department at the University of Waterloo. He joined PEO in 1991, serving on the executive of the Grand River Chapter (formerly the Kitchener-Waterloo and Guelph-Cambridge chapters) starting in 1993 and chairing the chapter in 1996. From 1998 to 2019, Fraser served nine times (18 years) as an elected PEO councillor and served on many PEO committees, including the Academic Review Committee from 1998 to 2022.

Fraser supervises the University of Waterloo Alternative Fuels Team (UWAFT), which competes internationally in the Advanced Vehicle Technology Competitions (AVTC). From 2022 to 2026 UWAFT will be competing in the next AVTC series, the EcoCAR EV Challenge to design, build and test the next generation of electrified connected automated (e.g., autonomous) vehicles. As UWAFT team advisor, his team has many technical awards and received the EcoCAR Women in STEM Award for four consecutive years (2019, 2020, 2021 and 2022). Fraser received the 2014 US National Science Foundation Outstanding Long Term Faculty Advisor Award. His research interests include vehicle powertrain design, vehicle emissions health impacts; compressed air energy storage; deep geothermal energy; thermoacoustics; oilsands tailings pond elimination; and remote sensing indicators of urban, crop and ecosystem health and development. He is a member of the Society of Automotive Engineers and the American Society of Mechanical Engineers and is a lifetime member of the Sandford Fleming Foundation. **rafraser@uwaterloo.ca**

Fred Saghezchi, MASc, P.Eng., FEC
President-elect

Fred Saghezchi received his master's degree in mechanical engineering from the University of Waterloo in 2003 and has 30 years of diverse professional experience specializing in product development. His professional experience includes working with Fortune 500 companies in a variety of fields, including aerospace, automotive and the heavy industries. In addition to his status as a professional engineer in Ontario, he is the recipient of a handful of certifications received from several associations in Canada and the United States. Saghezchi currently runs his own company offering services and products to industry, such as solar energy, stack-up parking systems and electronic vehicle chargers.

He has been an active member of PEO's Willowdale/Thornhill Chapter for the past 20 years. Saghezchi views the role of PEO Council and staff as serving licensed professional engineers, the real stakeholders, by monitoring engineering work for public safety and following regulatory actions to make sure the credibility and reputation of the stakeholders are protected. As president, Saghezchi is determined to change the *Professional Engineers Act* to reflect these values. He is also an avid supporter of self-governance in the engineering profession: only engineers can promote engineering values, not government. Saghezchi believes only a strong-president system, where the president is given increased administrative authority, can make an organization prosper and succeed. He believes in a grassroots approach to the presidency, driven by feedback and support from all members regardless of their geographical location. He can be reached on LinkedIn (@FredForPEOCouncil) or X (formerly Twitter) (@FredForPEO). **fsaghezchi@peo.on.ca**

Guy Boone, P.Eng.
Vice President (elected)

Guy Boone was first elected in February 2016 as PEO Eastern Region councillor, serving two terms (2016 to 2020), after serving as the PEO Ottawa Chapter (oPEO) 2015 chair. Boone joined the oPEO executive in 2008, after serving as PEO Algonquin Chapter vice chair. Boone is pleased to be recently elected as elected vice president for the PEO 2024–2025 Council.

As a safety engineer for certification of products, machines and systems, Boone has had firsthand experience protecting the public and influencing safety designs and practices on a daily basis. Boone is an electrical engineering graduate from Memorial University of Newfoundland. He is currently employed as a practising electrical engineer with lifecycle facilities management responsibilities for the Canada/US North Warning System (NWS) in Canada's Artic, from Alaska to Greenland exclusively, including Canada's east coast and Labrador, NL. He has worked with Alcatel, Nortel/BNR and Nemko Canada as a product safety engineer and as a system safety engineer with Atomic Energy of Canada Ltd. and Alcatel Transportation. In October 2022, Boone ran unsuccessfully in the Ottawa City Council election as Ward 24 Barrhaven East councillor candidate.

Boone is a strong, active advocate for the engineering profession, serving on OSPE's Chapter Liaison Committee and working within both oPEO and OSPE to initiate and develop a number of unique programs to support the engineering profession in the Greater Ottawa region. These included joint social and technical seminars, engineering employment events (OSPE E3), joint GLP/PAN meetings with MPPs and the 2015 launch of oPEO/OSPE Engineering Innovation Ecosystem program. Boone is a tireless advocate for services that engineers need and supports co-operation among PEO, OSPE, Engineers without Borders (EWB), learned engineering societies (IEEE, IET, CIMarE/SNAME, INCOSE, cISSS and SRE Ottawa) and the faculties of engineering at University of Ottawa and Carleton University. **gboone@peo.on.ca**

Nanda Layos Lwin, P.Eng., FEC
Vice President (appointed)

Nanda Layos Lwin is a professor in the School of Environmental and Civil Engineering Technology at Seneca Polytechnic in Toronto. In February 2023, he was elected as an East Central Region councillor on PEO Council. Prior to his election to Council, Lwin served 18 years on the executive of PEO's Willowdale/Thornhill Chapter, four of those years as chair. He also sat on PEO's East Central 30 by 30 Committee and was a member of the Government Liaison Committee. He is a member of the Ontario Society of Professional Engineers and the Council of Tall Buildings and Urban Habitat. In recognition of his contributions and service to the engineering profession, Lwin was made a fellow of Engineers Canada in 2015 and inducted into PEO's Order of Honour in 2022.

As an educator, Lwin began teaching at Humber College in Toronto in 2003, and then at Seneca the following year. There, he co-founded the student-run Seneca Civil Society and publishes an annual directory of civil engineering firms. In 2021, he established the Nanda Layos Lwin Civil Endowed Award for students in financial need.

Lwin holds a bachelor's degree in civil engineering from the University of Toronto and a master's degree in engineering and public policy from McMaster University. He has worked in both structural and transportation engineering. While employed at NCK Engineering in Toronto, he fulfilled a childhood dream by working on the structural rehabilitation program of the CN Tower, then the world's tallest free-standing structure. Lwin is a journalist and the author and publisher of eight reference books on contemporary music and wrote a popular weekly column on music charts. His articles have appeared in *The Globe and Mail*, canoe.com, and *The Hamilton Spectator*. In his leisure time, he enjoys keeping track of music charts, listening to music, reading, writing and politics, and he can often be found in a bookstore, museum or art gallery. He has also performed stand-up at a Toronto comedy club and is a former president of the Ruskin Literary and Debating Society, one of the oldest debating clubs in Canada. **nlwin@peo.on.ca**

Shahandeh Hannah Ehtemam, P.Eng.
East Central Region Councillor

Shahandeh Hannah Ehtemam is a seasoned civil engineer with over a decade of experience, holding a BEng in civil engineering with a minor in management sciences from Toronto Metropolitan University. Licensed as a professional engineer in Ontario and Alberta, she also holds her PMP certification from the Project Management Institute. Ehtemam has been volunteering with PEO since 2014 and has most recently served as the chair of York Chapter for two consecutive terms from 2022–2024. As an avid volunteer, Ehtemam is also an active member of the Tunnelling Association of Canada as part of the Equity, Diversity and Inclusion Committee.

Ehtemam's expertise lies in project management, design management and construction supervision. Her career highlights include serving as the design manager for grade separations on Metrolinx's On Corridor Works project, a pivotal project within Ontario's historic GO Rail Expansion Program. As deputy design manager for the Green Line LRT in Calgary, she showcased her leadership in conceptual design and planning for a 460-km low-floor LRT. Her commitment to excellence is evident in her meticulous approach to problem-solving, visualizing challenges and implementing engineering best practices.

With a track record of success in diverse projects and a passion for infrastructure development, Ehtemam is poised to continue making significant contributions to the field. She believes in continuous learning and collaboration and is truly grateful for the opportunity to serve the engineering community and champion young professionals in STEM. **shehtemam@peo.on.ca**

Ahmed Elshaer, PhD, P.Eng.
Northern Region Councillor

Ahmed Elshaer is a distinguished faculty member dedicated to enhancing the resilience and sustainability of built environments against natural hazards, particularly focusing on wind and climate impacts. As the founder and leader of the Structural and Wind Engineering Research Laboratory (SWERL), Dr. Elshaer has spearheaded numerous significant research projects and supervised a diverse range of young researchers, from postdoctoral fellows to undergraduate students. With a wealth of academic and professional experience spanning multiple universities and engineering firms in Canada and overseas, Dr. Elshaer has contributed significantly to the field of structural engineering. His research portfolio includes innovative studies on wind impact on structures, Indigenous housing, modular structures, aerodynamic and structural optimization and the use of artificial intelligence and machine learning in structural applications.

Dr. Elshaer's dedication to advancing the field of civil engineering is further demonstrated through his active involvement in professional organizations. He has served as vice chair of the Structures Division at the Canadian Society of Civil Engineering (CSCE), chair of the CSCE Structures specialty conference for three years, and as an evaluating committee member for prestigious funding bodies such as NSERC, FRQNT and the Ministry of Economic Development.

In recognition of his outstanding contributions, Dr. Elshaer has received several prestigious awards, including the Lakehead Merit Award in Combined Research and Administrative Services (2024), the Equity Diversity and Inclusion (EDI) initiative competition (2022), the Year of Climate Action Award (2021) and the Alan Davenport Award of Excellence in Wind Engineering (2016). **aelshaer@peo.on.ca**

Vicki Hilborn, MASc, P.Eng.
Western Region Councillor

Vicki Hilborn (she/her) began her engineering career working for a design-build firm focused on agricultural anaerobic digesters where she maximized the mechanical and biological operation of anaerobic digester systems throughout North America. Currently, Hilborn works as the engineering program coordinator for the Ontario Ministry of Agriculture, Food and Rural Affairs, where she leads a team of agricultural engineers located across Ontario to support innovation within Ontario's agri-food sector. In that role, she is regularly asked to speak on topics such as nuisance control and barn fire prevention and was selected as a 2019 Amethyst Award winner in the Outstanding Young Professional Award category. Hilborn has also sat on a number of boards, including the Zooshare Biogas Cooperative and the Canadian Biogas Association.

Hilborn has previously acted as the chapter chair for PEO's Brantford Chapter and volunteered on several PEO committees, including the Equity and Diversity Committee, Government Liaison Committee and Advisory Committee on Volunteers. Hilborn graduated from the University of Waterloo with a BASc (environmental engineering) and University of Guelph with a MASc (environmental engineering). Hilborn lives in Brantford with her husband; son, Eden; and dog, Wally. **vhilborn@peo.on.ca**

Glen Schjerning, P.Eng.
Councillor-at-Large

Glen Schjerning graduated from Carleton University in engineering in 1988. During the late 1980s and early 1990s, he served as an engineering officer in the Royal Canadian Navy, including taking a half-billion-dollar warship (1990 dollars) to sea as the marine systems engineering officer. He first became a P.Eng. in 1996. In the late 1990s and subsequently, he was a civilian engineer in both Canada's nuclear industry and with the Department of National Defence.

For two decades, he was active in the Professional Institute of the Public Service of Canada union. He was elected as NR Group president for multiple terms to represent the engineers, architects and land surveyors employed in the federal public sector. This work included negotiating collective bargaining agreements, where salaries and benefits are determined. In 2023, he was elected as a councillor-at-large on PEO Council. **gschjerning@peo.on.ca**

Uditha Senaratne, P.Eng., FEC
Lieutenant Governor Appointee

Uditha Senaratne is the manager of the independent technical reviews department (also known as the Safety Review Committee) at Canadian Nuclear Laboratories (CNL), Chalk River, ON. He is responsible for the independent technical review of all nuclear-safety-related documents prior to their submission to the Canadian Nuclear Safety Commission, the federal regulator of nuclear power and materials in Canada. Senaratne has over 20 years of experience in various aspects of nuclear engineering at CNL.

Senaratne holds a B.Sc.Eng. degree in chemical engineering from University of Peradeniya, Sri Lanka (1991) and a master of science degree in nuclear engineering from Penn State University, University Park, Pennsylvania, US (1995, Fulbright Scholar). He is a licensed professional engineer with PEO and a fellow of Engineers Canada. Senaratne's pastimes include photography and model railroading (Canadian Pacific models). **usenaratne@peo.on.ca**

COUNCILLORS-AT-LARGE

Leila Notash, PhD, P.Eng., FEC
Leila Notash is a professor in the department of mechanical and materials engineering at Queen's University and was previously an assistant professor at the University of Windsor. Notash grew up in Iran and received her BASc, MASc and PhD degrees in mechanical engineering from the Middle East Technical University, Turkey; University of Toronto; and University of Victoria, respectively. Licensed by PEO in 1996, she joined PEO as a member of the Academic Requirements Committee (ARC) in 2003, served as the vice chair and then chair of ARC from 2015 to 2018 and was vice chair of the Kingston Chapter from 2015 to 2019.

Notash is an associate editor (AE) of *Mechanism and Machine Theory* and the American Society of Mechanical Engineers (ASME) *Journal of Mechanical Design* (2022–2024) and was an AE (2014–2020) and guest AE (2021–2022) of the ASME *Journal of Mechanisms and Robotics* and *CSME Transactions* (1999–2017). She was the symposium/program chair/co-chair of ASME International Design Engineering Technical Conferences and Computers and Information in Engineering Conference. She was a member of the Canadian Committee for the Theory of Machines and Mechanisms executive (1998–2004) and International Federation for the Theory of Machines and Mechanisms Permanent Commission on Communications (2001–2011) and was the chair of PC from 2006 to 2011. Notash has served on the Queen's University Senate since 2009. She is committed to equity, diversity and inclusivity (EDI) and has championed EDI among her students. She was a member (2009–2011, 2018–2020) and chair (2010–2012) of the Queen's Senate Educational Equity Committee and the Canadian coordinator of an international capstone design project to provide international experience for undergraduate students (1997–2003). **leila.notash@queensu.ca**

Glen Schjerning, P.Eng.
(see Executive Committee)

Randy Walker, P.Eng.
Randy Walker received his BEng from Ryerson University (now Toronto Metropolitan University) and was licensed by PEO in 1996. He started out working in an electrical department at a papermill in Trenton, ON, moved up to IT and plant engineering and then to department manager. In 2010, Walker went into construction and worked on many interesting projects at CFB Trenton and Kingston. He recently served as an automation engineer.

Walker has spent 13 years in the chapter system, starting out as webmaster, moving on to chair for seven years and past chair for the previous five years. He is also a webmaster and GLP representative for the Quinte Chapter. Walker enjoys motorcycles, reading and being challenged. He is looking forward to the next two years serving as Eastern Region councillor. **rwalker@peo.on.ca**

REGIONAL COUNCILLORS

Eastern Region councillors

Michelle Liu, MASc, JD, P.Eng., LEED-GA
Michelle Liu (they/them) is a queer, racialized, non-binary and neurodivergent engineer (P.Eng.), soon-to-be lawyer (2024 call), speaker, consultant and researcher based on traditional Algonquin territory. Liu earned their Honours BASc and MASc in civil engineering from the University of Waterloo and has worked in both the public sector and various consulting engineering firms. Liu's experience of homophobic, racist and gender-based violence in engineering empowered them to pursue their law degree (JD) and engineering PhD simultaneously at the University of Ottawa. Liu's engineering PhD research, for which they received both the Vanier Canada Graduate Scholarship and the Pierre Elliott Trudeau Foundation Scholarship, uses sociolegal frameworks to critically examine the relationship between technological designs and the dominant norms in engineering, such as masculinity and meritocracy. Liu's short-term goal is to become a law professor and to run a law practice advocating for equity-seeking people who experience discrimination in STEM workplaces.

Liu's service work in both the engineering and legal professions include serving as co-chair of the Equity, Diversity, Inclusion and Accessibility Task Force of the Ontario Society of Professional Engineers, chair of the Waterloo Recent Engineering Alumni Council and member of the Equity Advisory Group of the Law Society of Ontario.

Liu co-created and co-funds the Liu-Kennington Award for the 2SLGBTQ+ engineering community, the first university-level scholarship for 2SLGBTQ+ engineering students in Canada. Liu is the recipient of over 20 awards from various institutions for their community service, including being named Engineers Canada's EDI Leaders in Engineering Workplaces in 2021–2022. **miliu@peo.on.ca**

Chantal Chiddle, P.Eng.
Chantal Chiddle is a highly skilled professional with diverse experience in the engineering and construction fields. She holds a civil engineering technology diploma from St. Lawrence College (Kingston) and a bachelor of engineering degree in civil engineering from Lakehead University (Thunder Bay) through the accredited bridging program. Chiddle was one of a handful of female students enrolled in the civil engineering programs.

Licensed since 2005, Chiddle has over 25 years of experience in the water and wastewater industry. Her practice focus in design and project management for water and wastewater projects prepared her for her current role. In 2015, Chiddle moved to the heavy civil construction industry as senior engineer/project manager working on infrastructure reconstruction projects. A respected leader in her field, Chiddle continues to contribute to the engineering and construction industries through work and volunteering.

Chiddle is an active volunteer and has spent over 15 years volunteering at PEO. As a past member of PEO Council (2020 to 2023), she sat on the Finance Committee, Legislative Committee and the Regulatory Policy and Legislative Committee, with one term as chair. Passionate about governance and giving back, Chiddle also sits on the board of Ontario One Call, including the Risk, Finance and Audit Committee. Chiddle is an avid reader, a world traveller, an army brat and enjoys listening to live music. **cchiddle@peo.on.ca**

East Central Region councillors

Nanda Layos Lwin, P.Eng., FEC
(see Executive Committee)

Shahandeh Hannah Ehtemam, P.Eng.
(see Executive Committee)

Northern Region councillors

Luc Roberge, P.Eng., FEC
Luc Roberge was raised in Verner, a small dairy community located in northeastern Ontario. He received his bachelor of engineering science (mechanical) from Queen's University, was registered with PEO in 1988 and has been a member of OSPE since its inception. Roberge started as an EIT in the pulp and paper industry with MacMillan Bloedel Ltd., went on to work in the lumber industry with Weyerhaeuser and ended his career with Ontario Power Generation in the renewable energy sector.

His participation in the chapter system started 20 years ago with the Algoma Chapter. He has also been a member of the Kapuskasing-Porcupine Chapter, where he was chair in 2019, and the North Bay Chapter, where he was chair from 2012 to 2014. Roberge has been a member of PEO Council since 2020 as a Northern Region councillor. During this period, he served on the following PEO committees: Licensing, Auditing, OSPE-PEO Joint Relations, Governance, Regional Councillors (RCC), Chapter Task Force and Human Resources and Compensation (HRCC) committees. During this period, he served as chair of the HRCC for three terms, vice chair of RCC for two terms and was the vice chair of the 2023 Volunteer Leadership Conference Planning Committee. Roberge was inducted into the PEO Order of Honour at the Member level in 2019. Before his involvement with PEO, he also volunteered as a Scout leader. He is looking forward to continuing to serve as a Northern Region councillor.
lroberge@peo.on.ca

Ahmed Elshaer, PhD, P.Eng.
(see Executive Committee)

Western Region councillors

Susan MacFarlane, MSc, PhD, P.Eng.
Susan MacFarlane has a PhD in civil (environmental) engineering from the University of Toronto and a MSc and BSc(Eng) in biological (environmental) engineering from the University of Guelph. Dr. MacFarlane has worked and solved problems in the areas of water, waste, stormwater, wastewater, spills and contaminated sites. Her most recent position was general manager of Lambton Area Water Supply System (LAWSS), which supplies water to about 100,000 people in Lambton County. At LAWSS, she managed capital projects and oversaw the operations and maintenance of the water treatment plant, booster stations and distribution system. Prior to her work at LAWSS, Dr. MacFarlane worked for a variety of environmental consulting companies and had the opportunity to provide services to many of the petrochemical and chemical industries in Sarnia-Lambton.

Dr. MacFarlane currently volunteers on two committees focused on the health of the St. Clair River, is involved and interested in local politics and has tried her hand at writing plays, short stories and poems. **smacfarlane@peo.on.ca**

Vicki Hilborn, MASc, P.Eng.
(see Executive Committee)

West Central Region councillors

Ravinder Panesar, P.Eng., FEC
After graduating in civil engineering from MNR Regional Engineering College (now NIT) with honours, Panesar joined the Punjab Water Supply and Sewerage Board, an undertaking of the Government of Punjab responsible for providing the water and wastewater infrastructure in Punjab under the International Development Agency. In 1986, Panesar became estate officer cum engineer to establish the Regional Engineering College campus (now NIT), a joint venture of the Government of India and State of Punjab, where he completed 80 per cent of the campus comprising of an administrative block, various teaching departments, faculty residences and student hostels, sports facilities and the infrastructure of roads, water and wastewater.

In 1996, Panesar migrated to Canada and joined C&T Reinforcing Steel as a detailer and estimator. After obtaining his professional engineering licence in January 2000, Panesar joined PEO's Brampton Chapter as an executive. Since then, he has served the chapter in various capacities, including chair, vice chair and almost 20 years as GLP chair. As a chapter chair, Panesar invited experts, speakers and politicians to enhance the knowledge and outlook of engineers. Panesar is a member of the Ontario Society of Professional Engineers and has mentored nationally and internationally educated engineers.

In 2002, Panesar joined Albrecht Reinforcing Steel (now AGF Rebar) as a detailer and estimator where he supervised a team of estimators and managed diverse projects. Currently, Panesar is associated with Technoarc Inc., an architectural consultant, and MAGH Engineering Inc. **rpanesar@peo.on.ca**

Pappur Shankar, P.Eng., FEC
Pappur Shankar is a mechanical engineer who has worked in many capacities on major EPC projects, ranging from $50 million to $500 million, for the past 35 years. Since 2017, Shankar has been involved in marketing and business development of engineering products. His experience in project management spans a wide range of industry sectors related to power (nuclear, mining, thermal, hydroelectric and utilities), oil and gas, mining and utilities with organizations including EXXON, Iberdrola USA, OPG, Hydro One and numerous mining and oil companies, and he was a member of the due diligence team for Cold Lake project in 1981.

Shankar is a co-founder and past president of PMI Lakeshore Chapter and a current member of PEO and the OSPE Energy Task Force. He has volunteered with PEO at the chapter level for 17 years in many capacities. He was the vice president of finance and SME for Indo Canada Chamber of Commerce in 2017 and a conference chair of Canada India Business Symposium, held in Toronto, where 130 companies participated. Shankar led the business delegation to India in 2017 as part of ICCC. He aims to address the challenges that must be faced over the next few years and work with Council to address regulatory requirements that will have a positive impact on the profession. **pshankar@peo.on.ca**

APPOINTED COUNCILLORS

Lorne Cutler, MBA, P.Eng.

Lorne Cutler graduated with a BASc in chemical engineering from the University of Toronto in 1979. He worked for Dow Chemical for four years in Fort Saskatchewan, AB, before returning to the Ivy School of Business at Western University, where he completed his MBA in 1985. In 1985, Cutler joined Export Development Canada (EDC), where he was responsible for signing loans in excess of $1 billion in India and the countries of central and eastern Europe and the former Soviet Union. In his capacity as senior advisor, Africa, Europe and Middle East in EDC's International Business Development Group, Cutler was primarily responsible for country and sector development strategies, relationship management with Canadian banks and exporters interested in the region and implementation of financing facilities with international financial institutions.

Upon early retirement in 2009, Cutler started a consulting firm, LAC & Associates Consulting, which focused on the areas of policy analysis and development, training, personal finance, personal taxation preparation and strategies, municipal finance, small business consulting, social finance and international business development. For several years prior to 2019, Cutler delivered a Professional Practice Exam training course for international engineering graduates for the Ontario Society of Professional Engineers. He received a Queen Elizabeth Diamond Jubilee Medal, Ontario 150 Award and Ontario Volunteer Services Awards for his volunteer work with such organizations as Ottawa Community Loan Fund and Jewish Family Services of Ottawa. For several years, Cutler has also been president of his local community association and treasurer of the Federation of Citizens' Associations. Cutler is chair of PEO's Audit and Finance Committee. **lcutler@peo.on.ca**

Andrew R. Dryland, C.E.T.

Andrew Dryland is a senior associate, contract administrator with R.V. Anderson Associates Limited, with over 36 years of experience in inspection and contract administration. He has been involved with multi-discipline projects in the mechanical, electrical, SCADA and process works for both water and wastewater projects. He graduated from Cambrian College in 1986 with a diploma in civil technology and started his career with R.V. Anderson Limited.

Dryland became a lieutenant governor appointed councillor to PEO Council in 2020. He is also an active member of Ontario Association of Certified Engineering Technicians and Technologists (OACETT) and volunteers with his local chapter. Dryland is an elected vice president of OACETT's professional affairs and services board (PASB) and was on the OACETT administration board from 2017 to 2019. As PASB councillor for the northern region from 2009 to 2017, he served as a member of the Policy Committee and provided leadership to northern region chapter executives and members. Dryland was vice chair of PASB from 2015 to 2017 and has over 10 years' experience serving on OACETT committees and Council. He has been involved with the OACETT Sudbury Chapter in many different capacities, volunteering as chapter treasurer, secretary and chapter chair for eight years.

Dryland has acquired over 35 years' experience in managerial roles in large organizations, and this has allowed him to be an excellent public speaker and to develop strong leadership skills. He looks forward to continuing to use these skills for OACETT and PEO to better the engineering industry for all professionals in the field. **adryland@peo.on.ca**

Paul Mandel, MBA, CPA, CA, CBV, CFF

Paul Mandel is a recent lieutenant governor appointee to PEO Council. He is a chartered professional accountant and chartered business valuator by training and is currently the national business valuations partner for RSM Canada. With 25 years of full-time business valuation experience, his clients include both public companies navigating valuation issues and parties in disputes where value of a business is an issue. He has been accepted as an expert witness by Ontario courts as an expert in business valuation and economic damages. When not working, he is an avid skier and biker and a parent to four children. **pmandel@peo.on.ca**

George Nikolov, P.Eng.

George Nikolov is a seasoned C-suite executive. He gained his executive management and corporate board governance experience on four continents. Nikolov is a business strategist with a background in corporate governance, audits, risk management, asset management, administration and operation. He has overseen multimillion-dollar operation and capital budgets at board and executive levels across Canada and abroad. He feels strongly about giving back to the community and is promoting access to justice and healthcare. He volunteers with Don Valley Community Legal Services and South Riverdale Community Health Services. **gnikolov@peo.on.ca**

Rachel Prudhomme, BEng, MSc, P.Eng., BPHE
(bio and photo not received)

Scott Schelske, P.Eng., FEC
Scott Schelske is a retired professional engineer in Ontario who worked for 47 years after graduating with a BSc in mining engineering from Queen's University in 1975. His extensive experience in operations, engineering, construction and consulting includes decades in a supervisory or managerial capacity of over $1 billion in capital projects. He has experience in education as both a high school teacher and headmaster of an underground mine training facility and was certified as an industrial and safety trainer. Notable positions include chief engineer at the Griffith Mine, the largest mining operation in Ontario at the time; quarry manager of Cold Spring Granite Company, the largest granite quarrier in the world; regional mineral development consultant with the Ontario Ministry of Northern Development and Mines, where he was nominated for an Amethyst Award and was the Ontario Government's team leader for permitting of over 50 mining ventures; and manager of mining and engineering at the Lac Des Iles Mine, North America's largest palladium producer.

Schelske left mining and transitioned into civil engineering with a local consulting firm and spent the last 15 years of his career working with Indigenous Peoples managing two Tribal Council technical services departments. As such, he was the professional project manager for over 100 capital projects, plus the construction or renovation of over 200 housing units for the Anishinaabe People.

Schelske held various positions on the executive for PEO's Lake of the Woods Chapter for 22 years, was named a fellow of Engineers Canada and inducted to PEO's Order of Honour for 2020. He was also given a lifetime achievement award by the Worldwide Who's Who for technical and engineering professionals. **sschelske@peo.on.ca**

Uditha Senaratne, P.Eng., FEC
(see Executive Committee)

Sherlock Sung, BASc
After obtaining a bachelor of applied science degree from the University of Toronto, Sung held technical positions in both the public and private sectors domestically and internationally across different industries. His employment experiences include research and development, product design, system commissioning, test and validation, quality assurance, technical instruction, operations, infrastructure management, procurement, contract administration, metrology and team supervision. **ssung@peo.on.ca**

Fairness Commissioner Presents on Promising Registration Practices

By Nicole Axworthy

564th Meeting, June 21, 2024

At Council's June meeting, Ontario Fairness Commissioner Irwin Glasberg, LLB, made a presentation to Council on the Office of the Fairness Commissioner's (OFC) core mandate and fair registration practices under the province's *Fair Access to Regulated Professions and Compulsory Trades Act* (FARPACTA), to which PEO is accountable. The OFC works with regulatory bodies to help establish registration processes that are transparent, objective, impartial and fair and that comply with the specific legal obligations identified in the legislation.

Commissioner Glasberg commended PEO on its new FARPACTA-compliant licence application process, including removing the Canadian experience requirement, meeting registration timelines for internationally trained applicants and its willingness to consider the continued relevance of four-year work experience requirements. "You're a very dynamic regulator, and it's a pleasure for our office to work with you," Glasberg said.

Commissioner Glasberg spoke about the launch of the OFC's Risk-Informed Compliance Framework, which looks at risk factors that could impact a regulator's ability to achieve better registration outcomes for applicants, including:

- Organizational capacity;
- Overall control of its assessment and registration process and interactions with third-party service providers (TPSPs);
- The impact of major changes to registration practices and relations to TPSPs;
- The ability to comply with new legislative or regulatory obligations; and
- Public policy considerations related to labour market shortages and its ability to promote inclusion and address anti-racism concerns in its registration processes.

He noted that the OFC has given PEO a moderate-to-high risk rating for the organizational capacity and overall control factors. "Despite this risk rating, PEO has taken a number of important steps to improve its registration practices and reduce its risk profile," he said. "It is important to note that the designation of a regulator's higher risk is not synonymous with an organization that is not attentive and working on fair registration practices."

Additionally, Commissioner Glasberg shared strategies related to fair registration practices that are being developed by other professional regulators, such as provisional registration strategies, a sequential versus parallel registration process—"PEO has adopted this philosophy, so you are ahead of the curve," Glasberg noted—and eliminating non-essential steps in registration. Finally, he noted best practices for success, such as keeping registration practices flexible, applying lean methodologies to drive process efficiencies, finding ways to assist applicants in finishing their licensing requirements and paying attention to the needs of employers.

VISION STATEMENT UPDATE

Past President Roydon Fraser, PhD, P.Eng., FEC, provided an update on the development of a new PEO vision statement that describes what PEO aspires to achieve to 2050 (see "PEO to Develop a New Vision Statement," *Engineering Dimensions*, Fall 2023, p. 15). Fraser noted that PEO aims to develop a vision statement that is audacious, ambitious, inspiring and goal oriented. The development process so far has involved 99 member volunteers organized into advisory groups that have created preliminary statements, from which common themes were identified and an interpretive document was developed.

The latest phase of the initiative has involved testing and refining the shortlist of vision statements. This phase involved extensive stakeholder engagement, including with PEO Council, chapters, the Ontario Society of Professional Engineers and student organizations. A total of 96 survey responses highlighted the importance of crafting a vision that resonates with stakeholders, promotes diversity, empowers engineers and ensures public trust and safety. Input on the visioning process will continue to be solicited, with statement options potentially being put before licence holders to vote upon through a referendum.

GOVERNANCE COMMITTEE WORK PLANS

At its June meeting, Council approved the work plans of all four governance committees, which include the Audit and Finance (AFC), Governance and Nominating (GNC), Human Resources and Compensation (HRCC) and Regulatory Policy and Legislation (RPLC) committees. The work plans provide a meeting-by-meeting roadmap and general assurance that the organization's key strategic initiatives and the duties and responsibilities of the committees are addressed during the 2024–2025 Council term.

The AFC work plan includes providing input on the 2025 budget assumptions and reviewing the draft capital and operating budgets prior to presenting them to Council for approval; reviewing and monitoring PEO's risks related to audit, finance, IT and cybersecurity; reviewing the proposed policy on technology use and security for Council and volunteers; and reviewing the expense reimbursement policy.

The GNC work plan includes reviewing the Council elections process; establishing metrics for governance performance, including principles of equity, diversity and inclusion; reviewing suggested changes to the Regional Councillors Committee terms of reference and making a recommendation to Council; reviewing and developing a plan for the format and location aspects of PEO's 2025, 2026 and 2027 annual general meetings (AGMs); and reviewing the Safe Disclosure (Whistleblower) Policy and providing recommendations to Council.

The HRCC work plan includes a CEO/registrar performance review and goal setting, annual organizational succession planning related to critical leadership roles

and reviewing and monitoring PEO's risks related to human resources.

The RPLC work plan includes a review of the final recommendations issued by Engineers Canada's Time-Based Experience Group; reviewing and making recommendations to Council related to PEO's practice standards and guidelines, including proposed revisions to the tower crane inspections practice standard and discontinuing the 1998 *Services of the Engineer Acting Under the Drainage Act*; reviewing a proposed framework on admissions guiding principles; and reviewing the future direction of the Engineering Intern Program following a plenary session in November and direction by Council.

2025 COUNCIL ELECTION DOCUMENTS

Council approved an amended motion to approve the nomination and voting procedures, election publicity procedures and nomination acceptance forms for the 2025 Council elections. The amendment removes one line from the nomination acceptance forms: "I understand that a false statement or misrepresentation could result in disciplinary action under the *Professional Engineers Act*." Procedural changes included in the 2025 Council elections come from the chief elections officer's recommendations, the Central Election and Search Committee's report to GNC, staff proposals and GNC recommendations that were developed out of the committee's ongoing election review.

The approved motion also included appointing the Regional Election and Search committees for each region. Council appointed the junior regional councillor in each region as chair of the Regional Election and Search Committee for their region: Chantal Chiddle, P.Eng., Shahandeh Hannah Ehtemam, P.Eng., Ahmed Elshaer, PhD, P.Eng., Vicki Hilborn, MASc, P.Eng., and Pappur Shankar, P.Eng., FEC.

AGM DATE

At its June meeting, Council selected Saturday, April 26, 2025, as the date for PEO's 2025 AGM. Following approval of the AGM date, a comprehensive three-year AGM plan will be considered at the GNC's and Council's September meetings, starting with the location of the 2025 AGM.

TRUTH AND RECONCILIATION FINAL REPORT

Council approved a motion to receive the recommendations outlined in the report *Recommendations for addressing the TRC Calls to Action and Increasing Indigenous Representation in Engineering in Ontario*. This work was conducted by Indigenous consultants Indigenous and Community Engagement (ICE) to fulfill an April 2022 Council motion directing PEO's Anti-Racism and Anti-Discrimination Exploratory Working Group to evaluate PEO's role in the Truth and Reconciliation Commission's Calls to Action and accountabilities to answer the Calls to Action through engagement with Indigenous Peoples, licence holders and other communities in Ontario.

Council heard a presentation on the report from Heather Swan, ICE vice president of reconciliation, including an overview of their findings and recommended actions and next steps. ICE is working with PEO to conduct a series of Indigenous consultations and help develop strategies in line with PEO's Anti-Racism and Equity Code. **e**

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