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THE PATH FORWARD



THE PATH FORWARD



You turn up the heat and grab a glass of clean tap water, before researching a project on the internet or tracking your fitness on your phone. You walk the dog past a stormwater management pond and admire the blackbirds flitting between cattails. You catch the train to the big game. Whenever you use or connect with the human-built world, you're relying on the work of APEGA's members. Our members are at the vanguard of the renewable energy boom. Just as important, they're discovering and processing the traditional resources Alberta and the rest of the world continue to rely upon. They're testing, developing, and commercializing amazing products and technologies that improve and save lives. They're propelling the economy. They're protecting the public. And all of this is being accomplished under a time-tested system of self-regulation that their predecessors devised. APEGA's roots are in the early 1900s, when engineers recognized that a lack of regulation of their profession—whose ranks in those days included geoscientists—was endangering the public. Way back then, they did something impressive and innovative. Turning a crisis into an opportunity, they proposed, to the Government of Alberta, that engineers regulate themselves. Almost 100 years later, it's the model that APEGA continues to successfully use and improve. Our members created the path that got us here. And our members are creating the path forward.

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APEGA 101

APEGA serves the public by regulating engineers, geoscientists, and the organizations they practise under. We licence them. We direct and guide them. We make sure they are competent, and that they conduct themselves professionally and ethically. When necessary, we investigate and discipline them.

We also protect the public from non-members who contravene the legislation that guides us—those people and companies who illegally use our protected titles or practise when they aren’t licenced.

As a self-regulator, we are funded through member dues rather than taxes, while the Government of Alberta (GOA) provides us with broad direction through the Engineering and Geoscience Professions Act.

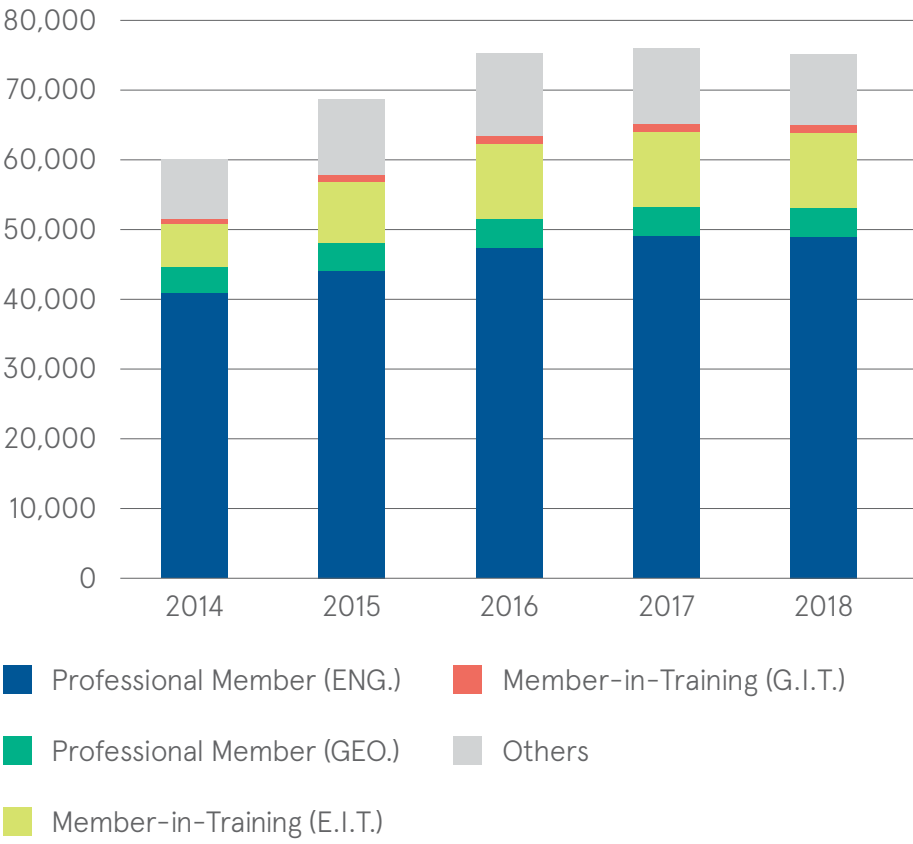
Members elect fellow professionals to sit at our Council table. The public is represented during Council meetings, too, by three Councillors appointed by the GOA.

APEGA will celebrate its centennial in 2020. With almost 75,000 members, we are the largest organization of self-regulated professionals in Western Canada.

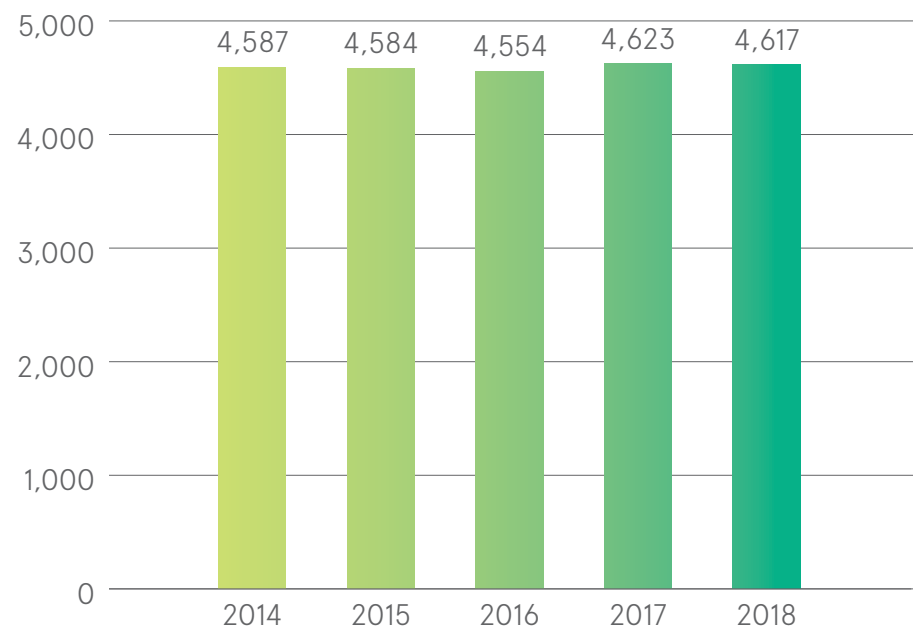
From academia to industry, from governments to not-for-profits, from oil and gas to solar power, from the health sciences to high tech, APEGA’s members are making ethical, skilled, forward-looking decisions that protect and serve the public.

Leaders. Innovators. Experts. Professionals.

Our Membership



Corporate Permits to Practice



WHAT DOES THE SELF-REGULATION OF ENGINEERING AND GEOSCIENCE DO FOR ALBERTA?

It **leverages** the specialized expertise, skills, knowledge, and experience of people who practise the professions. This gives our regulatory decisions real-world relevance and validity, which means the public is protected by sound science and peer-developed standards.

It **harnesses** the power and knowledge of volunteers. APEGA relies on the experience and expertise of volunteers to make regulatory decisions with staff, and to share science with the public. Without volunteers participating in regulation, the government would have to use taxpayer dollars to fulfill these duties.

It **saves** taxpayers even more money. APEGA operates on funds raised from members through fees. Without APEGA, this money would come from provincial coffers.

It **defines, maintains, and advances** a community of qualified professionals. All professional engineers and professional geoscientists in Alberta have APEGA in common. That means they adhere to the same *Code of Ethics*, follow the same guidelines and standards, are investigated and disciplined in the same way, and must achieve the same level of education, experience, and good character. Think of it as a type of consumer protection—when companies and individuals hire APEGA professionals, they know what they're getting.

All forms of regulation are designed to protect the public. But only self-regulation ties public protection directly to the people performing the regulated services. It's effective and publicly affordable, and it's backed up by nearly a century of APEGA service to the public.

APEGA'S COUNCIL AND WHAT IT DOES



From left, front row:
President-Elect, George Eynon, PGeo.,
FGC, FEC (Hon.), President, Nima
Dorjee, PEng., FEC, FGC (Hon.),
Past-President, Jane Tink, PEng., FEC,
FGC (Hon.), Vice-President,
Timothy Joseph, PEng, PhD, FCIM

Middle row:
Jennifer Enns, PEng., Dr. Brad Hayes,
PGeo., FGC, FEC (Hon.),
Claudia Villeneuve, PEng., M.Eng.,
Georgeann Wilkin, RN, LL.B, MBS,
Emily Zhang, PEng., Jason Vanderzwaag,
PEng., Walter Kozak, PEng.

Back row:
Darren Hardy, PEng., RaeAnne Leach,
PEng., Bob Rundle, PEng., PMP,
Tim Hohm, PEng., Natasha Avila, PEng.

Not pictured:
Manon Plante, PEng., MDS, CD1,
Mary Phillips-Rickey, FCA

APEGA’s Council—19 people strong—applies teamwork, professionalism, and a diversity of perspectives to its duties. This group provides governance and guidance to APEGA’s members and staff, and it’s a fundamental component of self-regulation.

Although APEGA has about 140 employees, Council directs just one of them, the Registrar & CEO, whose job it is to turn Council’s strategic direction into actions and outcomes.

Three of those councillors are called public members. Appointed by the Government of Alberta, part of their role is to bring differing perspectives to discussions and decisions.

The other 16 members of Council are professional engineers and professional geoscientists elected by their peers. Twelve are regular councillors serving three-year terms, and the other four are members of the Council Executive.

Every year, APEGA holds an election to freshen Council by replacing four of the regular positions with new faces, and to vote two new members onto the executive.

Councillors set the direction for APEGA, providing oversight throughout the year. Council’s responsibilities include:

- developing and driving APEGA's strategic direction
- ensuring responsible use of resources to effectively execute APEGA's strategic plan
- providing guidance on APEGA’s function and activities
- providing financial oversight
- making decisions that affect the professions and the membership

Council is a critical element in maintaining and enhancing self-regulation, creating the path forward as we continue to serve the public into the next century.



MESSAGE FROM THE PRESIDENT

The APEGA President segment of my personal and professional journey is about to end, and I leave the position confident that I've played an important role in charting APEGA's future. In many ways, that future is now.

Engineers and geoscientists are practising in a new world. APEGA's job is to keep current and relevant in this changing professional landscape, as one of Canada's—and the world's—premier self-regulators. We've earned our reputation, but we must continue to prove ourselves.

Reliance on the work of professionals in other countries is a reality for many of Alberta's industries. Engineering and geoscience oversight must be consistent and thorough, no matter where the work is done, and APEGA must continue to address the regulatory challenges this presents.

“ I THINK OF OUR DUTY TO THE
PUBLIC AS SOMETHING BIGGER THAN
OURSELVES, OUR INCOMES, AND, DARE
I SAY IT, OUR PROFESSIONS.”

Globalization (and the internet) do not go in one direction, however. Our members need to embrace the concept of off-shoring. Opportunities for our members exist on the world stage, and we have a surplus of engineers and geoscientists who have excelled in a demanding professional environment. The leadership and mentorship our members can provide are marketable, and APEGA has helped members reach that level of professionalism.

The new world also offers opportunities in homegrown projects. Oil and gas, I believe, will never return to its past glory. But the skills our members have can be used in a variety of industries, emergent and otherwise. It's one of my major calls to action for the membership: be creative in the way you apply your skillset. Your experience, expertise, and professional approach are transferrable.

Finally, I'd like to talk about universal responsibility. I think of our duty to the public as something bigger than ourselves, our incomes, and, dare I say it, our professions. Many of our members agree with me, and they prove it every day through the wonderful things they do for the greater good, whether in Alberta or elsewhere in the world. I encourage them to continue in these pursuits, and I encourage others to follow their example.

Thank you, people of Alberta, for placing your trust in us. And thank you, APEGA members, for giving me this platform. You've allowed me to do something special for engineering, geoscience, and the public, and it's been a pleasure.

Nima Dorjee, P.Eng., FEC, FGC (Hon.)
APEGA President

MESSAGE FROM THE REGISTRAR & CEO



“ WHEN I LOOK BACK AT 2018, I SEE RESULTS
THAT BUILD UPON A PROUD HISTORY AND
SET US UP FOR FUTURE SUCCESS.”

When I look back at 2018, I see results that build upon a proud history and set us up for future success. Self-regulation is a journey of continuous improvement, and we intend to thrive tomorrow in the same way we have in the past.

Welcome to *APEGA Annual Report 2018: The Path Forward*. The theme resonates with me, because it relates directly to my role as Registrar & CEO. Essentially, here’s what my Executive Leadership Team and I focus on:

- *aligning our work with Council’s strategic direction*
- *finding new opportunities to improve*
- *responding to new information*
- *measuring APEGA’s success*
- *adjusting our course*

What does all this mean on the ground? You’ll find out in the coming pages. For example, you’ll learn all about a new assessment system we developed with the help of a grant from the Government of Alberta. We now rely upon objective, comparable competencies, when we assess the experience of applicants. This is a huge step forward in making the system more relevant for everyone and intuitive for applicants.

We’re part way through our Member Experience Project, which will make our online world more user-friendly. With the support of a federal grant, we’re studying workplace barriers for women and other groups in our membership. We’ve created the Innovation in Education Award to fund selected K-12 projects in science, technology, engineering

and math. We’ve expanded our mentoring program into rural Alberta.

We are also revising some important practice standards and guidelines, including:

- *Authenticating Professional Work Products* (the new version is nearly ready for Council approval)
- *Relying on the Work of Others and Outsourcing*
- *Professional Practice Management Plans*

Many of the professional practice challenges our members and permit holders discuss with us involve these three documents, so we know this work is extremely important and relevant to our role of serving the public interest.

These and many other projects are all leading us into 2020, a big moment in the life of APEGA: we’ll celebrate our first centennial. The story this report tells will show you that we’re ready for 2020—and the years that follow.

Thank you for supporting APEGA and joining us on this journey.

Jay Nagendran, PEng., QEP, BCEE, FEC, FGC (Hon.)
APEGA Registrar & CEO

LEGISLATIVE REVIEW

APEGA’s legislative review is all about meeting the needs of the future. We hope to be better equipped than ever to protect the public interest in our second century, as we keep our self-regulatory system relevant and vital.

We began the review of the *Engineering and Geoscience Professions Act (EGP Act)* and *General Regulation* in 2014. This resulted in a multi-year, deep dive into the legislation.

In 2018, we concluded two critical phases of this ambitious project. The consulting phase and the submission phase—to the Government of Alberta (GoA)—are now complete. We also continued our conversation with the GoA and stakeholders, by creating a government relations program. Our ultimate objective is to obtain a modernized *EGP Act*. This has included continued conversations with our engineering and geoscience technology partners at the Association of Science & Engineering Technology Professionals of Alberta (ASET), elected officials, and various ministries and regulators.

Also on our to-do list: aligning current APEGA bylaws with our proposed new legislation.

cumulative to end of 2018

THE NUMBERS

5

Rounds of legislative review consultation sessions (spring and fall)
Stakeholders shared their input on legislative change through: face-to-face meetings, surveys, email, webinars, videoconferencing

4,240

Stakeholders who participated in consulting sessions

3,930

Stakeholders who completed legislative review surveys

200

Proposed legislative changes under consideration

40

Professional Engineers and Geoscientists who make up the champions collaborative a group of professionals engaging members and permit holders in the legislative review process and leading discussions on proposed changes

80

Proposed recommendations examined during consultations and endorsed by Council

7

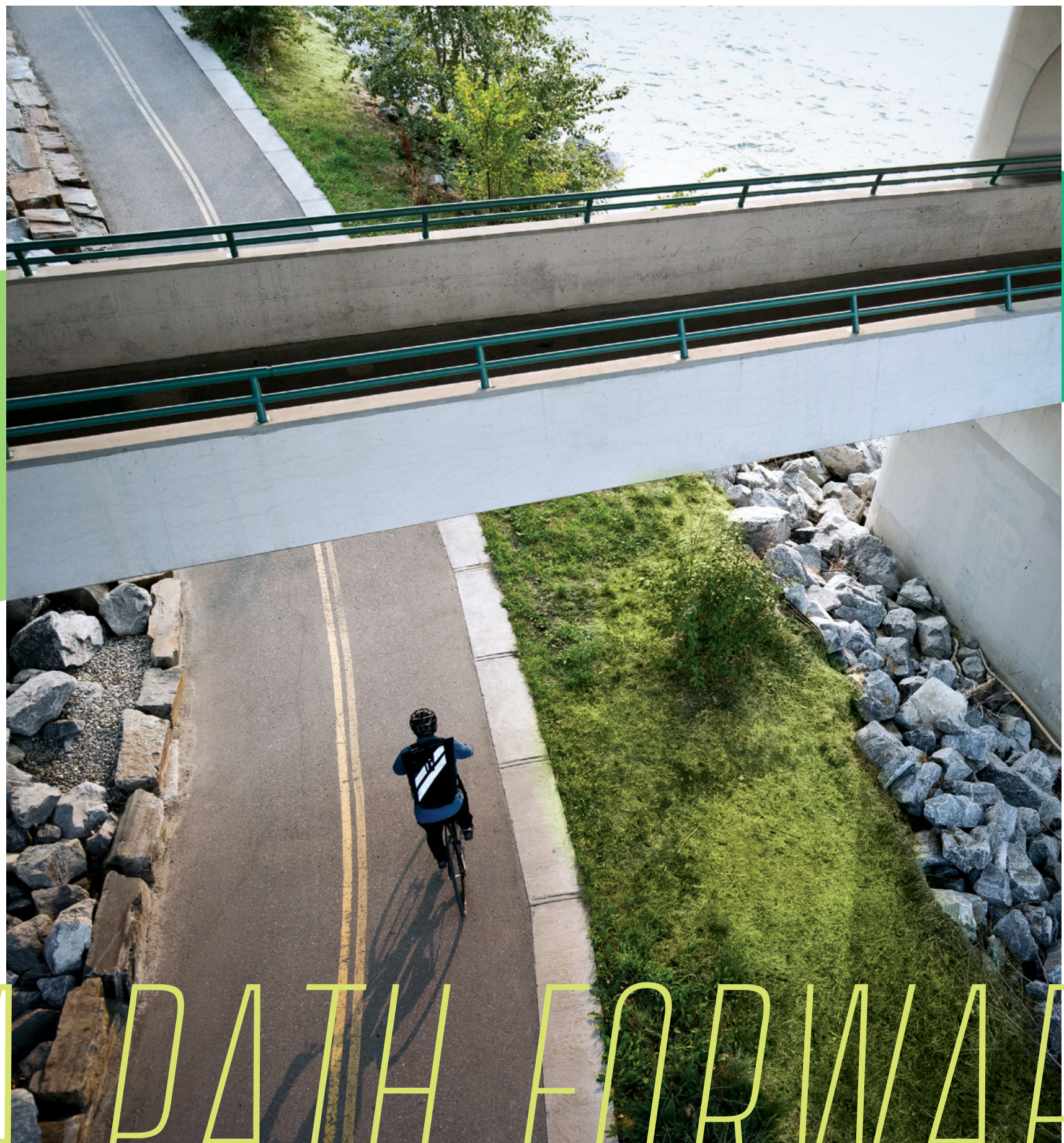
Communities where in-person consultation sessions were held:
- Calgary
- Edmonton
- Fort McMurray
- Grande Prairie
- Lethbridge
- Lloydminster
- Red Deer

OPERATIONAL HIGHLIGHTS

Describing a year's worth of ground-level activity would fill more pages than our annual report could possibly provide. We have a lot going on, as these highlights demonstrate in their representation of lofty words and plans—translated into actions.

Some of these activities are underway day in and day out, regardless of the year. Some are specific to 2018. Others began in 2018 but will continue.

All of them are helping us create a path forward, as APEGA nears its second century of service.



CREATING A PATH FORWARD

Becoming
an APEGA
professional

IT'S
A
BIG
DEAL

Registration is about people and their future in the organization. And it's about *our* future as an organization.

Each APEGA applicant is attempting to complete a life-changing transition. It's a big deal, and we get that.

We treat our potential members with respect. We honour their needs and dreams by processing their applications honestly and fairly, and as promptly as possible.

But also at play is something bigger than any individual applicant or member. Registration is a critical component in APEGA's service to the public interest.

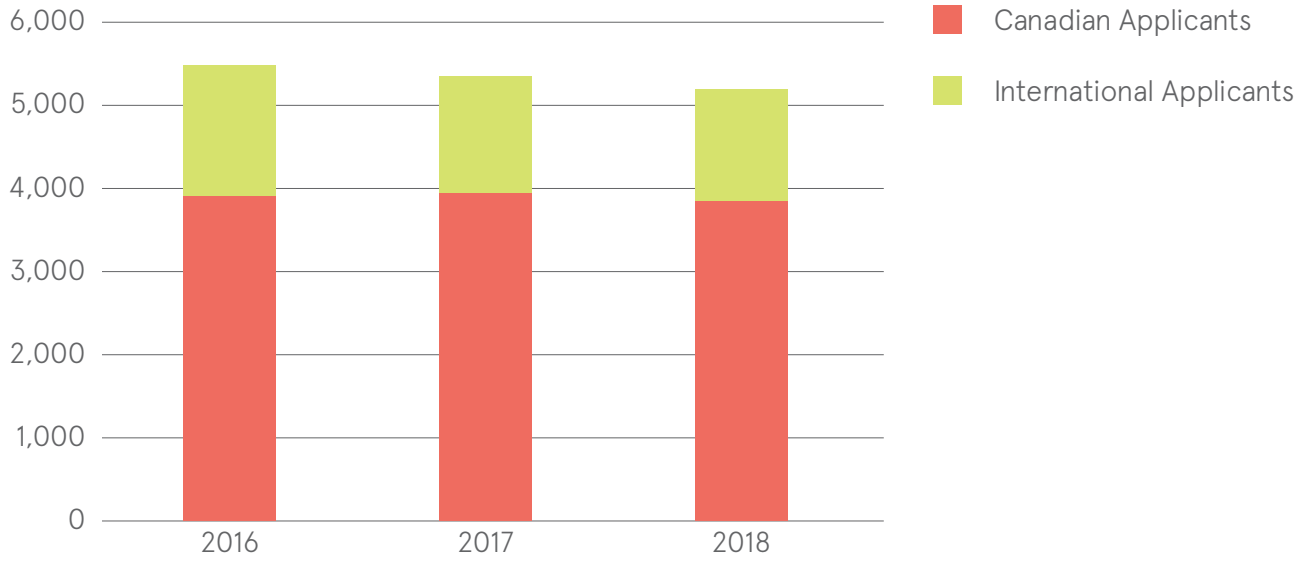
We must be certain that members have the education, experience, ethical and professional knowledge, and English-language competency required for a high standard of professional practice.

All this drives us, as we create the path forward into our next century of service to the people of Alberta.

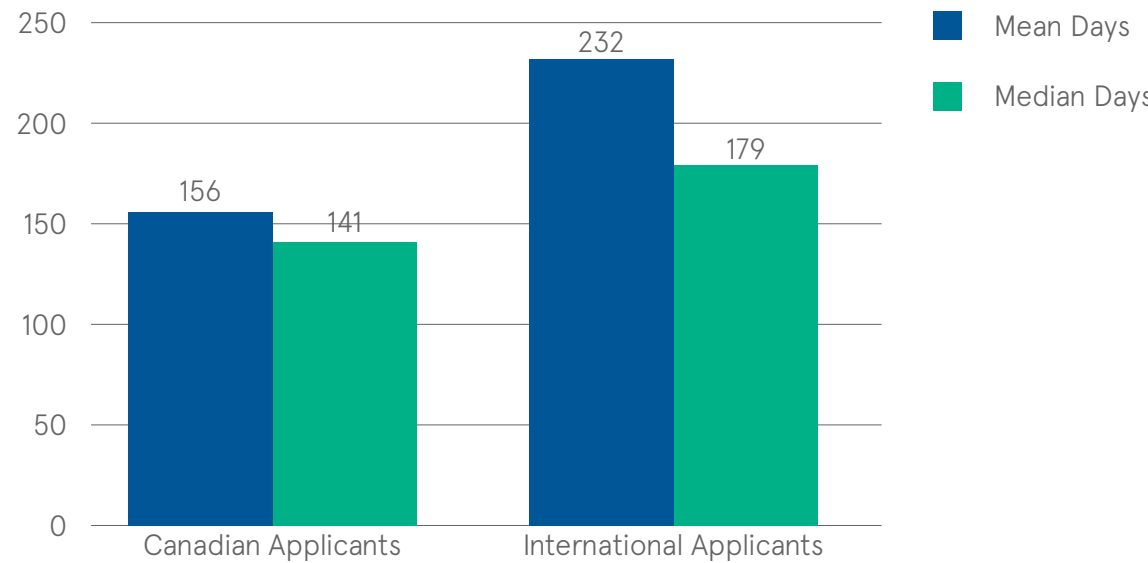
Regulatory

Key regulatory functions, the responsibility of our Regulatory Group, are described in the *Engineering and Geoscience Professions Act*. These represent the nuts and bolts of public protection through self-regulation.

Volume of Applicants: Canadian vs. International



Application Processing Times



Competency-Based Assessment

In 2018, APEGA launched a robust system for reporting and examining the work experience of applicants applying for professional engineer and engineering licensee designations, called competency-based assessment (CBA).

CBA features a list of core competencies that measures and explains their applicants'

engineering work experience. This transparent, quantifiable and equitable process makes it easy for applicants to understand how their skills are recognized and evaluated. CBA also means objective and comparable information is presented to APEGA's Board of Examiners, for its determination of whether applicants meet Alberta's experience standard for qualification as an engineer.

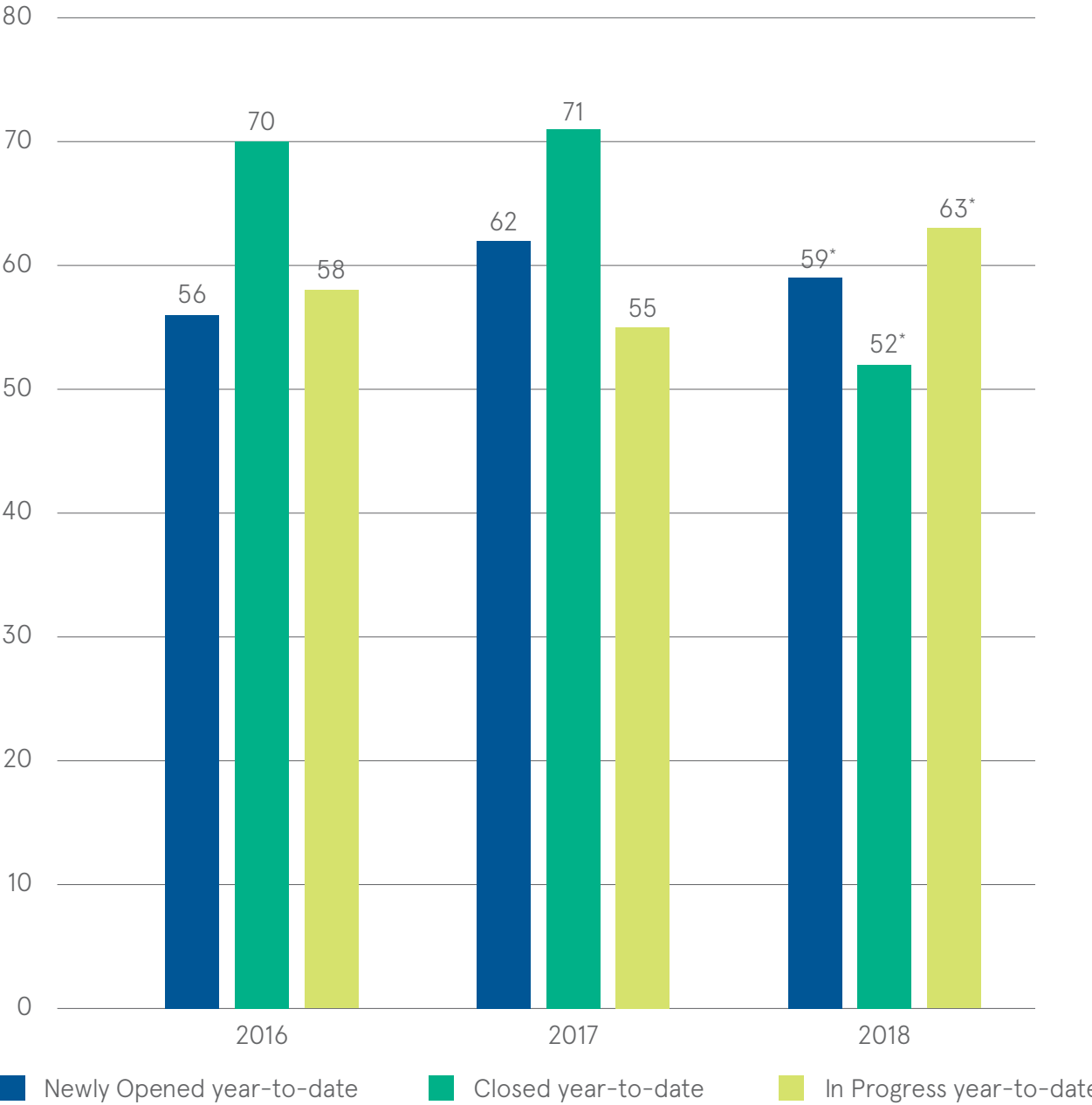
INVESTIGATIONS

WHEN COMPLAINTS COME IN AGAINST MEMBERS, WE INVESTIGATE

We do our best to give members the extra knowledge and tools they require to perform their duties professionally, ethically, and within their skillsets. When we do receive complaints against members or permit holders, it's up to the Investigations Department and the Investigative Committee to decide whether a complaint has sufficient grounds to proceed.

Through the *Engineering and Geoscience Professions Act*, APEGA has the authority to investigate unprofessional conduct and unskilled practice for engineering and geoscience in Alberta. A thorough and objective approach means evidence-based complaints can be resolved through an equally rigorous discipline process.

Investigations at Year End



The Path Forward

ENFORCEMENT

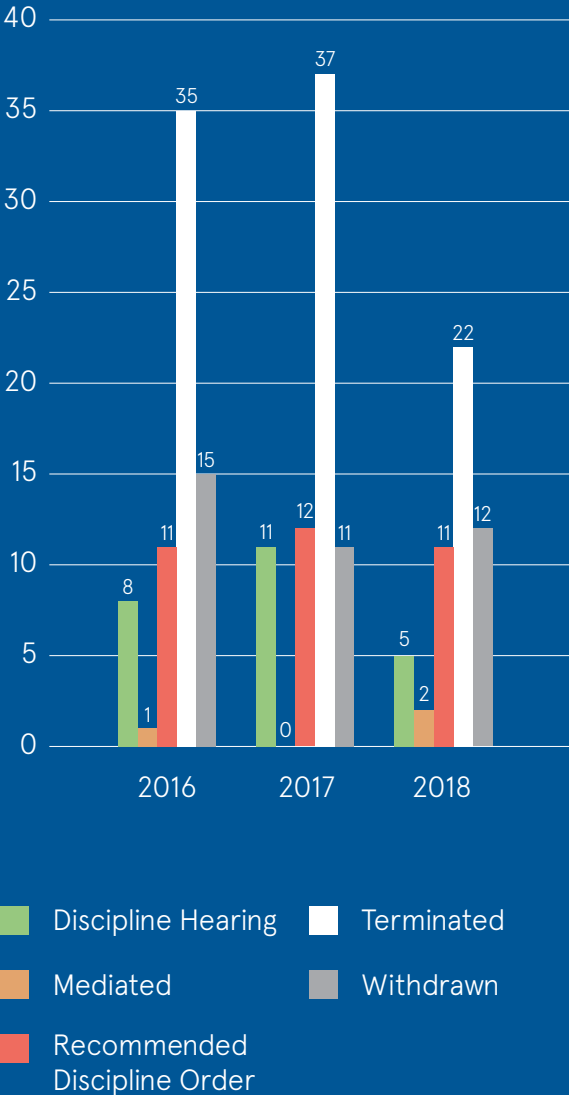
WE MAKE INFORMED DECISIONS AGAINST MEMBERS—AND NON-MEMBERS

Alberta's *Engineering and Geoscience Professions Act* and General Regulation, along with APEGA's bylaws, must be enforced to ensure the public is protected. This is true for members and, interestingly, non-members.

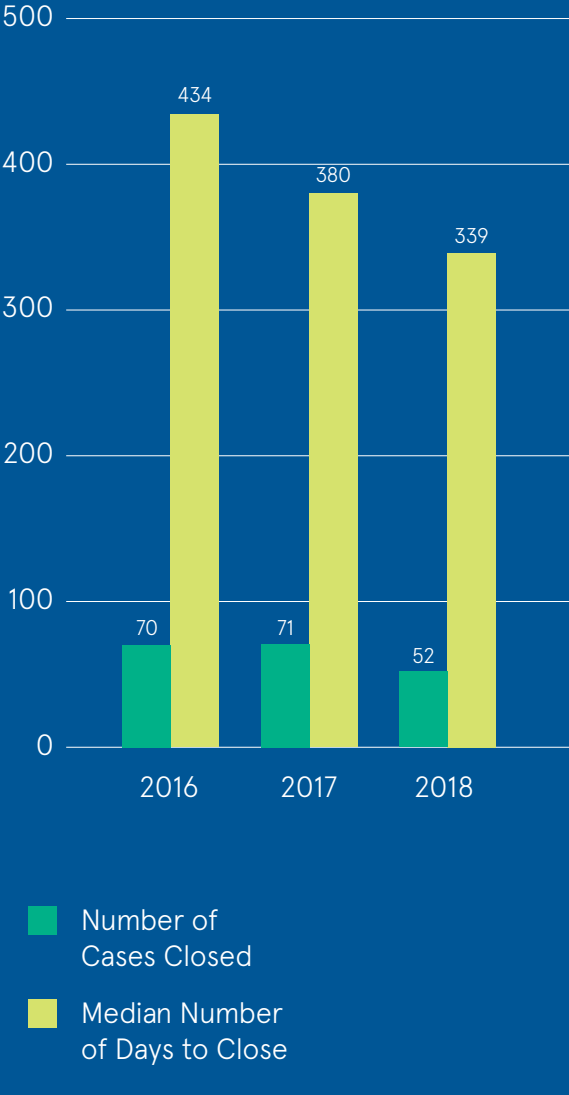
Two regulatory areas make up our Enforcement Department—discipline, which involves members and permit holders, and compliance, which involves non-members who appear to be illegally using our protected titles or practising without licences.

DISCIPLINE

Cases Closed



Processing Time



The Path Forward

DISCIPLINE

Complaints often proceed through recommended discipline orders (RDOs), which, if accepted, mean that a formal hearing is not necessary. Investigated members or permit holders agree to the findings against them and the proposed disciplinary actions.

A case manager from the Discipline Committee decides whether to recommend acceptance to the committee of an RDO. Case managers also manage and execute the full hearing process.

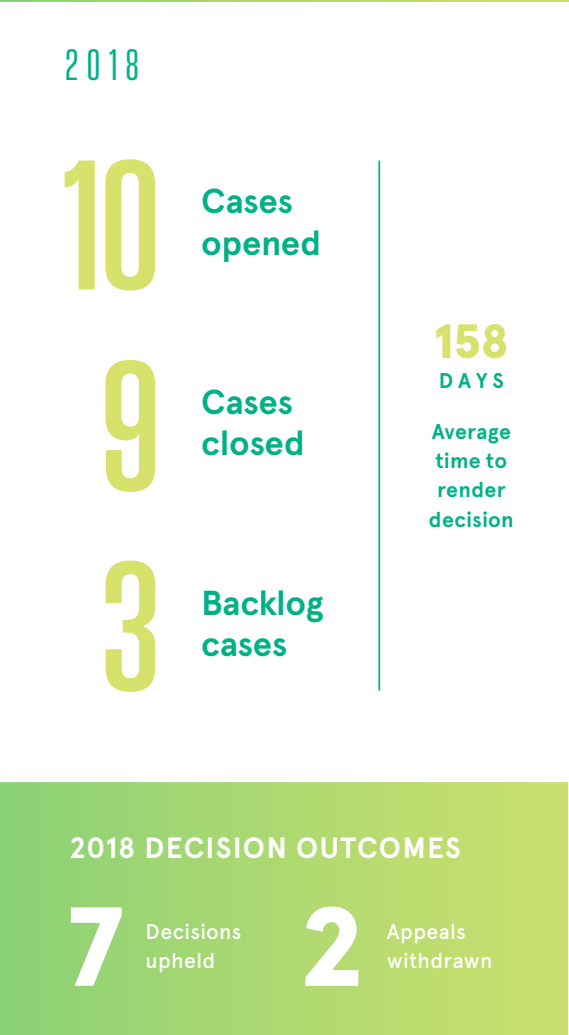
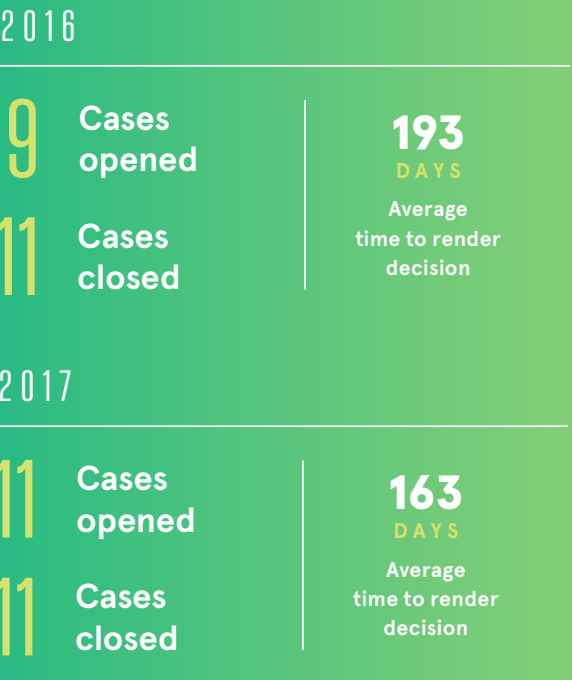
Our main staff focus in 2018 was to schedule and hold a backlog of hearings.



APPEALS

Filings to APEGA's Appeal Board are appeals of:

- registration refusals
- investigative dismissals
- discipline decisions



COMPLIANCE

The compliance team engages with individuals, companies, or other entities that are:

- using reserved titles—titles only engineers, geoscientists, and legally practising organizations are allowed to use—without a licence or permit
- representing themselves as entitled to practise when they aren't
- practising engineering or geoscience in the province of Alberta without an APEGA licence or permit

Why does this matter? It's a form of consumer protection. When members of the public hire engineers, geoscientists, or the companies that employ them to practise APEGA's

professions, they need to know they're hiring real, self-regulated professionals.

In 2018, our focus was on recruiting and training new staff and continuing to address compliance cases.

A significant success was working with a major company to ensure title compliance. Often, companies unknowingly give staff who aren't APEGA members titles that contravene the *Engineering and Geoscience Professions Act*.

We also retained an expert witness in geoscience to assist us on long-term outstanding cases that required expert opinions in the area.



PROFESSIONAL PRACTICE

FACE-TO-FACE ENGAGEMENT WITH MEMBERS AND PERMIT HOLDERS

The Professional Practice Department is all about contact with professionals. We do this through information and feedback sessions on new practice standards and guidelines. Through seminars for permits to practice. Through practice reviews. Through counselling members on how to properly meet APEGA’s requirements for continuing professional development.

Those interactions add up. In 2018, we talked to more than 4,000 licenced professionals.

AUTHENTICATION STANDARD

Understanding and properly implementing authentication, particularly in the digital space, is one of the most talked-about challenges licenced professionals face in their practice. The Professional Practice Department, through the Authentication Standard Subject-Matter Panel (consisting of subject-matter experts and a select group of permit holders), updated APEGA’s *Authenticating Professional Documents Practice Standard*.

We even updated the name. Now titled *Authenticating Professional Work Products*, this standard improves definitions and adds clarity to this important professional responsibility.

PRACTICE REVIEWS

The main objective of our practice review effort in 2018 was to collect data on the time, effort, and resources required to complete reviews. This will inform our decision-making process on the appropriate level of practice reviews to be conducted annually to demonstrate the due diligence serving the public interest requires of us.

APEGA initiated 27 practice review this year. Feedback from permit holders was mostly positive, with many thanking us for our insights and recommendations.

CONTINUING PROFESSIONAL DEVELOPMENT

Our mandatory Continuing Professional Development Program is the keystone in demonstrating an APEGA commitment to maintaining member competency. Professional Practice has been able to increase CPD compliance—and reinforce the importance of doing and recording ongoing learning as a critical component of self-regulation and professional due diligence.

A CANADIAN
LEADER IN THE
CONTINUOUS
IMPROVEMENT OF
THE NATIONAL
PROFESSIONAL
PRACTICE EXAM

EXAMINATIONS

APEGA delivers about 7,000 exams a year to applicants and professional members, most of them online. Exams are used to assess and confirm the knowledge and education of applicants, and sometimes to provide a first step for members towards licensure in the U.S.

APEGA is a national leader in the development and continuous improvement of the National Professional Practice Examination (NPPE), which is used by 11 other engineering and geoscience self-regulating organizations in Canada. It confirms knowledge of areas such as professionalism, law, regulations, and ethics, and all APEGA applicants must pass it in order to obtain their professional license.

In 2018 a great deal of work was undertaken by the APEGA Examinations team to improve and enhance the NPPE program.

We successfully implemented a new syllabus (exam blueprint) for the NPPE. The new exam syllabus improves the exam’s organization of content, while providing added detail and clarity to applicants preparing for the exam.

Additionally, in partnership with the University of Alberta, we conducted original research in the area of Canadian work experience and how the NPPE relates to Canadian culture. Our findings were well received when we presented them at the 2018 Canadian Network of Agencies for Regulation Conference. This research could lead to improvements in the way Canadian regulators approach exams for both newcomers and all applicants.

We successfully implemented two important policies related to the number of attempts and time allowed for applicants to pass the NPPE. These improvements enhance application processing and provide further security of exam content.



TRUSTED PROGRAMS, SERVICES AND TOOLS TO CREATE AND MAINTAIN A SUCCESSFUL CAREER.

MEMBERSHIP SERVICES

Membership Services is an invaluable support and development system for our current and future members.

Strictly speaking, the work we do in Membership Services is not regulatory. There are no investigations of complaints going on this group. Nor are there practice reviews launched or panels struck to update practice standards. Membership Services is not disciplining members or asking them to correct their processes.

But APEGA believes that good regulation has a whole other component: strong and appropriate services for members and permit holders. This group is about all the other things that go into being a well-rounded professional. It's here to provide members trusted programs, services, and tools to create and maintain a successful career and balanced life.

CAREER SERVICES

APEGA offers a variety of career services to meet the needs of our members and future members.

In 2018, we launched student mentoring pilot programs at the University of Alberta and the University of Calgary.

We continued to improve our mentoring program, and enrollment continues to grow. We made mentoring more efficient, started new initiatives, and reached out to members more often with news stories and refreshed advertising. Coming soon: speed mentoring.

PD sessions have grown in number and attendance. Group registrations are more common than they used to be—which means our messaging is reaching larger groups of peers and colleagues.

MEMBERSHIP EXPERIENCE PROJECT

We plan to transform the digital experience of members and permit holders, whenever they interact with APEGA. So we kicked off our Membership Experience Project—we call it MEx for short—in 2018.

The year focused on discovery and planning. We continued to learn more about what members want and expect from us, and came up with a plan to fully execute MEx.

We interviewed about 80-plus staff in 17 departments. We conducted five online and in-person focus groups with members. And we launched a membership survey.

7,700
TOTAL MEMBERS RESPONDED

4,851
PROFESSIONAL
MEMBERS

1,193
RESPONSIBLE
MEMBERS
(members charged with extra regulatory responsibility within permit-holding companies)

2,853
PARTIAL COMPLETES
(data still used for analysis)

More than
400
REQUESTS FOR
IMPROVEMENTS
RECEIVED

The year 2019 will be critical for MEx. Our goals are to select a platform that meets our requirements and start detailed planning of our launch and implementation.

Centennial 2020
YOU’LL BE SEEING A LOT OF US IN 2020. THAT’S BECAUSE APEGA WILL BE CELEBRATING ITS 100TH ANNIVERSARY.

Planning hit high gear in 2018. Our centennial is an opportunity to delve into the association’s long and storied past in a number of engaging and interesting ways. We’ll highlight the intertwining of APEGA with engineering and the geosciences, tell stories of members who’ve made valuable contributions to Alberta and the world, and use a variety of media platforms to engage our many stakeholders.

PROFESSIONAL MEMBER INDUCTION CEREMONIES

Every year, APEGA celebrates one of the most important milestones in our members’ lives: the achievement of professional status. We do this by inviting new members to ceremonies and receptions across Alberta. Many of these they can enjoy with their families and colleagues.

For many years, it’s been difficult to accommodate all the members who wished to attend. But through a series of format modifications, we’ve eliminated our backlog of invitees. More members are able to attend ceremonies—sooner rather than later.

DIVERSITY & INCLUSION

Earlier this year, APEGA created and publicized a formal diversity statement to inspire our permit holders and members to champion diversity and inclusion in their workplace:

ENCOURAGE A BUSINESS CULTURE OF BELONGING, INCLUSION, AND DIVERSITY FOR EQUITY WITHIN THE ENGINEERING AND GEOSCIENCE PROFESSIONS.

Great words. Are we living up to them?

Yes.

In 2018, we were awarded a three-year, \$350,000 grant from the federal government’s Status of Women Canada (since renamed the Department for Women and Gender Equality, or WAGE). The grant was awarded for building partnerships to address systematic barriers, with a specific focus on promoting economic security for women.

With this grant, APEGA will collaborate with permit holders and community organizations to develop, test, and release a workplace culture guideline. It will address retention and advancement barriers that affect women’s economic prosperity. Among its topics will be inclusion, hiring practices, wellness strategies, pay equity, training and advancement opportunities, and the creation of employee resource groups.

PD FOR TEACHERS

This year, APEGA launched its first professional development conference for teachers, aimed at helping them foster a love of learning about engineering and geoscience through real-world connections.

We shared our unique perspective on experiential, project-based engineering and geoscience education to 69 Alberta educators from four school districts. After two immersive days of collaborating, creating, and brainstorming, participants walked away with industry-focused classroom activities, community-based project ideas, and a new way of thinking about STEM education.

We got some great feedback from participants.

“THE TOPICS WERE RELEVANT. APEGA IS ON THE CUSP OF EMERGING TRENDS THAT EDUCATORS NEED TO BE RESPONSIVE TO.”

“THANK YOU SO MUCH FOR PROVIDING THIS OPPORTUNITY FOR ME TO REFINE MY SKILLS IN TEACHING STEM THINKING. OH WHAT POSSIBILITIES LIE AHEAD FOR THE STUDENTS I TEACH!”

“This was *new* information, not just rehashed stuff from other sessions. Loved the examples, the activities to get people thinking and sharing. Really a great succession in terms of scaffolding information.”

APEGA INNOVATION IN EDUCATION AWARDS

APEGA's Innovation in Education Awards celebrate and boost exceptional teachers and their initiatives in the fields of science, technology, engineering, and math (STEM). This new program awarded money to a first cycle of projects for the 2018/2019 school year.



Recipient teachers will use their awards to incorporate meaningful, hands-on, student-led experiences into their classrooms. Projects have students:

creating a turbine to charge cell phones

developing multimedia displays in a community observatory

programming sensors to optimize plant care in Martian soil

participating in a new robotics program

prototyping technologies that can withstand natural disasters

installing interpretive trail signs to showcase geological, ecological, and Indigenous Peoples' learnings

we awarded

\$50,000

to eleven
exciting
initiatives

each receiving up to
\$5,000

Initiatives are being carried out by
12 SCHOOLS

FROM 7 different
school
boards
across
Alberta

reaching an expected
850
students in grades 2 to 12

Like other activities in APEGA's K-12 Outreach Program, the awards strive to excite young people about engineering and geoscience topics and associated careers, while also boosting their awareness.

A few more points:

- each chosen initiative relates to realistic applications that could positively impact the students' communities
- APEGA members will be mentoring students and acting as subject-matter experts
- the awards will help promote diversity within STEM fields, because of their impact on students who would not necessarily choose a STEM path

CORPORATE SERVICES

The highlights here peek into the machinery that runs APEGA.

Members, Council, and staff rely on the smooth operation of the association to do their jobs. For APEGA to serve the public interest, we need Corporate Services—a largely unseen hand in everything APEGA does—to work properly and efficiently.

People & Culture

This initiative of the Human Resources Department centres on modernizing and standardizing the types of staff positions, responsibility levels, and lines of authority. It will allow for fair and transparent advancement, and equitable salary levels and comparisons. Employees and managers attended workshops on their role descriptors, which were drafted and sent to a consultant for review.

Also under the People & Culture banner, APEGA's vacation policy was updated, and a new whistleblower policy and procedure were created.

Finance

We streamlined our accounts payable process in 2018, moving from a stamp-and-paper system to an online workflow. We also eliminated cheque payments by converting to electronic fund transfers.

We achieved:

- faster vendor approval and payment cycles
- a reduction in administration work for management and staff
- savings on paper, mailing, reconciling, follow-up, and more

We've enhanced our forecast and budget templates, customizing them for each department. A user-friendly layout helps staff clearly understand what they are forecasting and budgeting for. This results in an intuitive, clean, and easy-to-follow process for management, and reduces budget-time stress.

We also integrated our business planning and budgeting cycles in 2018, creating a streamlined process that brings together staff expertise from the Business Performance and Finance Departments. This has resulted in a more efficient and meaningful system, putting business thinking into planning.

Information Technology

We cut our cybersecurity risk score in half, by implementing 50 mitigation plans. These included putting a system in place to monitor the APEGA computer network. The system learns normal behaviours and alerts us about suspicious activity. We also strengthened our password systems and added protections to keep staff and guests away from bad internet locations.

A new staff intranet portal was put in place in 2018. Called OWL, this is an online centre for employees to communicate and collaborate. It includes news, staff directories and information, departmental and divisional pages, and easy-access links for common tasks. OWL, the third intranet site in APEGA's history, offers up an improved method of communicating across our organization. So far, so good, say APEGA staff members.

Work continued to modernize our member management system, which stores member and permit holder information. This is the central system for delivering a host of services to our members and permit holders. Work underway will put into use the latest software from the vendor and open the door for many improvements. The path forward is that we'll be leveraging those improvements in 2019.

Our new system of examining the experience of engineering applicants, called competency-based assessment, has a huge information technology component, so our IT staff were there to make it part of our online application system. This new method of self-reporting competencies helps APEGA become a better regulator. You can read more about it elsewhere in this report.

A HISTORY OF SUCCESS



The first-ever Summit Awards gala was held in 1991, honouring high-achievers among our membership—while recognizing their contributions to the public and the APEGA professions. Before that, APEGA awarded members less conspicuously, over lunch at each year's Annual General Meeting.

APEGA is still at it today. The awards gala is held in conjunction with the APEGA Annual General Meeting and Conference as a stand-alone, formal (but fun!) event. Our list of Summit alumni keeps growing, as the engineers and geoscientists of Alberta keep reaching greater and greater heights.

Award categories range from sustainability and research to leadership and mentoring. Each winner receives a teardrop-shaped statuette, like the one pictured here. In 2018, seven members and the representatives of one project took to the stage, to accept accolades from their association and their peers.

CENTENNIAL LEADERSHIP AWARD

Leah Lawrence, P.Eng., FEC, FGC (Hon.)

In recognition of the highest distinction relating to engineering or geoscience as an executive or director of a continuing enterprise.

OUTSTANDING MENTOR AWARD

Brian Thicke, P.Eng.

In recognition of exceptional achievement as a mentor.

EARLY ACCOMPLISHMENT AWARD

Nashaat Nassar, P.Eng., PhD

In recognition of exceptional achievement in the early years of a professional career.

RESEARCH EXCELLENCE AWARD

Yang Gao, P.Eng., PhD

In recognition of innovative research in the professions that improves our economic and social well-being.

ENVIRONMENT AND SUSTAINABILITY AWARD

Fort McMurray Wildfire Cleanup

In recognition of excellence in the preservation of the environment and the practice of sustainable development.

COMMUNITY SERVICE AWARD

Reza Nasseri, CM, AOE, P.Eng.

In recognition of an outstanding contribution made to society.

EXCELLENCE IN EDUCATION AWARD

Simaan AbouRizk, P.Eng., PhD

In recognition of exemplary contributions to teaching and learning.

WOMEN IN ENGINEERING AND GEOSCIENCE CHAMPION AWARD

Lynne Cowe Falls, P.Eng., PhD

In recognition of achievement as a champion of women in engineering and geoscience.



LEAH LAWRENCE,

P.Eng., FEC, FGC (Hon.), FCAE

President and CEO Sustainable Development Technology Canada

2018 APEGA CENTENNIAL LEADERSHIP SUMMIT AWARD RECIPIENT

Alberta has long been an incubator of remarkable leaders and innovators who have changed the province—and the country—for the better. Leah Lawrence, P.Eng., is among the many APEGA members on that list.

After starting her engineering career in Calgary in the mid-1990s, Ms. Lawrence spent two decades building her reputation as a cleantech innovator and entrepreneur, focusing her attention on sustainable technology development in the oil and gas and electricity industries.

She stepped into the spotlight in 2012 to serve as APEGA's President, only the fourth woman to take on the role since the association's founding in 1920. She also served as the fourth female chair of the Calgary Chamber of Commerce in 2014, before moving to Ottawa to take her career to a whole new level.

In 2015, she was appointed the President and CEO of Ottawa-based Sustainable Development Technology Canada (SDTC), a foundation that manages nearly \$1 billion in clean energy research, development, and demonstration projects for the federal government.

Her ties to APEGA and Alberta's engineering and geoscience community remain strong, though, and in 2018 she was recognized with APEGA's Centennial Leadership Summit Award, the association's highest honours.

"APEGA and its history embody the importance of upholding a set of higher ideals and ethics," notes Ms. Lawrence. "To be recognized by my peers as one who has been able to do this is, in some small way, very humbling."

Serving as an APEGA volunteer and as President were valuable learning experiences for her, allowing her to meet and work with hundreds of students, other professionals, and members of the public.

"I learned that leadership is mostly about listening, learning from other people's perspectives and experiences, and understanding that there are a multitude of worldviews that must come together if we are to make progress," says Ms. Lawrence.

Not only that, it's about building a framework that enables and encourages others to effect change towards a common goal, and, hopefully, a greater good.

"When I was APEGA President, this greater good was an engineer's and geoscientist's duty of care to the public," she says. "At SDTC, it's about nurturing an ecosystem of entrepreneurs developing transformative environmental technologies."

"I learned that leadership is mostly about listening, learning from other people's perspectives and experiences, and understanding that there are a multitude of worldviews that must come together if we are to make progress."

For Ms. Lawrence, leadership is a continually evolving journey. Her advice to other professionals looking to grow as innovators and influencers is summed up these words, which she aspires to daily:

- *Be courageous*
- *Never settle*
- *Resist dogma*
- *Follow your curiosity and intuition, but at the same time be rigorous in your facts and thinking*
- *Don't be afraid to fail, and when you inevitably do, try and do it graciously*
- *Passionately believe that change can happen, if you work for it. Know that it can happen at any level, anywhere, anytime*

FORT MCMURRAY WILDFIRE CLEANUP TEAM

2018 APEGA ENVIRONMENT AND SUSTAINABILITY SUMMIT AWARD RECIPIENT

Steve Taylor, P.Geo., Project Director
Gregory Parker, P.Eng., Project Manager
Josh Ruud, P.Eng., Project Coordinator

For Josh Ruud, P.Eng., working on the Fort McMurray wildfire cleanup was an amazing experience—but also one he hopes will never be repeated. He was an engineer-in-training when the disaster struck in May 2016, forcing the evacuation of the city's 88,000 residents and destroying 2,500 homes.

Along with colleagues Steve Taylor, P.Geo., and Gregory Parker, P.Eng., he led the Fort McMurray Wildfire Cleanup Team, whose outstanding efforts to quickly remediate fire damaged homes, with minimal environmental impact, was recognized with APEGA's 2018 Environment and Sustainability Summit Award.

Before joining the team, Mr. Ruud got involved in relief efforts as a so-called "highway angel," helping evacuees stranded after running out of fuel. His logistical skills also came in handy when he signed up as a volunteer with Edmonton Emergency Relief Services, helping design a system to quickly and efficiently process the flood of donations that poured in immediately after the fire.

When Mr. Ruud returned home to Edmonton, he thought his involvement with the disaster was over. It wasn't.

"Having a group of that size work with such purpose and focus, to cleanup the houses as quickly and as professionally as possible, made me really proud of all the people involved."

In early July, he got a call from Mr. Taylor, his former boss, who was directing a mass cleanup of Fort McMurray homes for Specialized Property Evaluation Control Services. They needed a project coordinator. "Of course, I couldn't say no," says Mr. Ruud. "Being asked to manage a project of such immense importance and scale was a massive honour."

Living in a Fort McMurray hotel for the next few months, he was deeply struck by the destruction around him. He and

a project team of more than 100 people resolved to get homes cleaned up as quickly as possible, so reconstruction could begin before winter.

"The project progressed at break-neck speed, with endless unexpected twists and turns. Having a group of that size work with such purpose and focus, to cleanup the houses as quickly and as professionally as possible, made me really proud of all the people involved," says Mr. Ruud.

Over the next two months, the team worked closely with 50 subcontractors to remove ash and recycle waste from 980 damaged properties. Of the nearly 203,000 tonnes of waste removed, more than 70 per cent was reused or recycled.

To keep the project on track, a database was developed to efficiently allocate resources and streamline communication with contractors, local government, and utility companies. Over two months, 71,000 milestones were tracked, or about 580 a day. But all the hard work was nothing compared to what residents had gone through, says Mr. Ruud.

"Seeing how the thousands of citizens were able to persevere, through what I can only imagine were some of the most challenging months of their lives, really gave me insight to the resiliency and resolve that people are capable of."

APEGA: THE PATH SO FAR

1920

The Engineering Profession Act receives legislative assent and **THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF ALBERTA (APEA) IS BORN**

Initial professional membership was 69 civil, 20 mining, 10 electrical, and 7 mechanical engineers

1946

APEA begins use of the designation PEng. for professional engineers

1947

The association publishes its first member magazine, the *Alberta Professional Engineer*

1968

Corporations that practise engineering in Alberta must now obtain a permit to practice from the association

1969

Geoscientists and geophysicists join APEA, ringing in a new name: The Association of Professional Engineers, Geologists and Geophysicists of Alberta (APEGGA)

1972

The first edition of a member newspaper called the *Mini PEGG* is launched

1975

The PEGG relaunches in newspaper format

1979

MEMBERSHIP REACHES **15,000***

1991

APEGGA holds its **FIRST ANNUAL CONFERENCE,**

Includes professional development seminars, an Annual General Meeting, and a celebration of member excellence called the Summit Awards Gala

1997

To better serve the public interest, APEGA launches Canada's first mandatory continuing professional development program for engineers and geoscientists

1998

MEMBERSHIP REACHES **30,000***

1999

APEGGA launches its first website

2000

APEGGA CELEBRATES THE ARRIVAL OF THE 21ST CENTURY BY PARTICIPATING IN THE CALGARY CONSTRUCTION ASSOCIATION'S MILLENNIUM 2000 TIME CAPSULE PROJECT

A collection of APEGGA items are included in the capsule, scheduled to be opened in 2100

2007

APEGGA welcomes its 50,000th* member

2009

Members approve the adoption of the professional geoscientist designation, combining professional geologist and professional geophysicist

2010

The PEGG changes to magazine format and its name becomes *The PEG*, reflecting the new geoscience designation

2012

Treaty 8 First Nations and APEGGA sign an historic memorandum of understanding to improve educational outcomes among First Nations youth

2011

The Professional Geoscientist designation receives legislative approval, and APEGGA is renamed APEGA

2014

LEGISLATIVE REVIEW BEGINS

It's an in-depth look at APEGA's governing legislation and how it can be modernized

2015

MEMBERSHIP REACHES **75,000***

2017

The PEG becomes an online-only publication

2020

APEGA celebrates 100 years of self-regulatory excellence in Alberta

*all membership categories—professional and non-professional

*all membership categories—professional and non-professional



HE SHARES SCIENCE— AND MARVELS AT YOUTHFUL INGENUITY

Amir Fardi, E.I.T.
Pipeline Integrity, Plains Midstream Canada
APEGA Science Olympics Volunteer

Student ingenuity is never in short supply at the APEGA Science Olympics—and that's what Amir Fardi, E.I.T., loves about it.

For the past three years, he's volunteered as a judge at the Calgary Science Olympics. The annual event brings together more than 500 K-12 students, who are tasked with solving various engineering and geoscience problems.

He finds it inspiring to see what ideas students will come up with next.

Last year, for example, junior high students were challenged to solve an erosion problem. Water was dropped onto a sand-covered ramp. The students had to protect sugar cubes from the water, using marshmallows and Play-Doh. They were given extra points for reducing the amount of sand that collected at the bottom of the ramp.

"It's always so interesting to see how the kids think outside the box. They find solutions to different problems that not even us adults could think of."

Mr. Fardi was particularly impressed with one group of students, who encased the sugar cubes with Play-Doh, and then stretched it across the middle of the ramp. No sand got by, and the sugar cubes survived the deluge of water unscathed.

Another year, he was amazed by a group of students who deconstructed a remote-control car—then used its parts to build a kite that could lift and drop a bag of gummy bears onto a target.

"They came up with a super-complicated and super-creative way to solve the project," says Mr. Fardi. "For me, it's always so interesting to see how the kids think outside the box. They find solutions to different problems that not even us adults could think of."

As a young professional, Mr. Fardi signed up as an APEGA Science Olympics volunteer because he wants to stay engaged with and give back to his profession. He also strongly supports the mission of the Science Olympics: to demonstrate the fun side of engineering and geoscience, while showing students first-hand how the professions impact our everyday lives.

"I'm a big believer that STEM subjects (science, technology, engineering, and math) are what really drive society forward, so getting younger kids interested in these subjects is very important," he explains. "Also, the Science Olympics teaches them that STEM is fun! It's not all complicated, technical, scientific stuff."

He has signed up to volunteer for his fourth Science Olympics, and encourages other APEGA members to consider participating.

"I come back because it's always different every year. Different projects, a different group of kids, different minds," he says. "It's a great feeling to be a mentor and share your knowledge with the kids. They really look up to you and that's a very rewarding experience."



BACK IN 2001, SHE WAS STILL LEARNING ENGLISH

Dr. Tatiana Goulko, P.Eng.
Senior Mechanical Engineer, Government of Alberta
APEGA Board of Examiners—Experience Volunteer

As an internationally trained professional, Tatiana Goulko, P.Eng., PhD, knows all about the challenges newcomers face when they arrive in Canada.

In 2001, she moved from Russia to Edmonton to start a new life and career. Along with her husband and two children, they learned English from scratch, while at the same time adapting to a new culture.

A well-established mechanical engineering professor in Russia, Dr. Goulko completely switched career paths, transitioning from academia to industry. Her first job in Canada was an internship with a local consulting firm, which soon turned into full-time employment.

"The first couple of years, I just tried to integrate into the Canadian workplace, to learn how engineering standards and codes work in Canada," recalls Dr. Goulko. "I had great support from my coworkers and my boss."

"I can see things from my experience. I can explain the difference between Russian and Canadian engineering. In that way, I contribute my knowledge."

She also took another big step shortly after arriving in Canada—applying to APEGA for her engineering licence. While she met most of APEGA's licensing requirements, she had to return to university to complete an economics course. She clocked in hour upon hour preparing for the National Professional Practice Exam, too, a test that all APEGA applicants must take to confirm their knowledge of professionalism, law, and ethics.

"It wasn't easy for me because of the language barrier, but I never thought about giving up," says Dr. Goulko. "I knew it had to be done."

Her efforts paid off when she received her P.Eng. designation in 2007.

Fast-forward to 2012.

While visiting APEGA's website, Dr. Goulko noticed an ad seeking volunteers for the Board of Examiners. She decided to answer the call.

Board volunteers are the APEGA members responsible for setting admission standards and reviewing membership applications. They play a key role in protecting the public and serving the public interest by ensuring the individuals licenced by APEGA are qualified to practise engineering and geoscience in Alberta.

Dr. Goulko's diverse professional experience—both in Russia and in Canada—brings a unique perspective and voice to the board table. "I can see things from my experience. I can explain the difference between Russian and Canadian engineering. In that way, I contribute my knowledge."

She plans to volunteer with the board for many more years to come. "I just love volunteering for APEGA. It's very rewarding to know my work is helping keep the public safe, through the licensing of competent professionals," says Dr. Goulko.

She also enjoys working with other experienced and talented professionals who share the same technical interests, while at the same time having the opportunity to give back to her profession.

"This is one way I can contribute my knowledge and experience, to grow the engineering profession for future generations. That is very important for me."

PUBLIC MEMBERS— A MATTER OF PERSPECTIVE

When Alberta engineers decided a century ago to propose an affordable and effective way to regulate themselves, it was all about public protection. They recognized that bad actors among them were endangering fellow citizens. The ranks of engineers—which at the time included geoscientists—needed to shape up, as a modern, civilized society began emerging from the Wild West.

Those are our roots. Many things about our province, our professions, and our industries have changed in the years since. But here's something that's remained the same: APEGA regulates the practices of engineering and geoscience in a way that puts the public interest first.

Doesn't it just make sense that the public, whose interests we serve, have a voice in our major regulatory decisions?

Yes, it does. That's why the Government of Alberta appoints public members to APEGA's Council, Board of Examiners, Practice Review Board, Investigative Committee, Discipline Committee, and Appeal Board. These are full voting members. They sit on subcommittees and panels as required, and they take part in the decision-making

process. They provide viewpoints that perhaps our own representatives would not have considered on their own.

Public members arrive with perspectives from other professions. Lawyers, doctors, teachers, accountants, communications experts, retired politicians, entrepreneurs, representatives of many other walks of life—all have had seats at APEGA's regulatory tables, over the years.

The voices of our public members are important. They should be heard in the board room. And they should be heard in the public arena.

We include reports from public members in our annual report. Following are their words of wisdom about APEGA's self-regulatory challenges and achievements in 2018.



COUNCIL

APEGA’s Council has been through a rigorous few years of adapting the association to external risks and challenges. These actions were necessary, even as an economic downturn was eroding APEGA’s bottom line and forcing members into unemployment. Yet Council made the tough decisions and put the association on track.

It’s our opinion that, in 2018, APEGA began to reap what Council has been sewing. Council’s relationship with senior staff, especially the Registrar & CEO, is stellar and productive. Senior staff are now in place to facilitate moving forward. Communication is clear, complete, and unflinching, and trust is strong. We can’t emphasize too much how important this is to the future of the organization and, therefore, the protection of the public interest, though Council ensuring the robustness of the agency it governs.

Financial oversight and allocation of resources had been a concern. Council and senior staff addressed these problems and made the tough decisions. We are pleased to report that the financial position of APEGA today is healthy. In fact, we were pleased that Council did not turn to members for a dues increase in 2019 and has contingency funds available to cover unexpected costs.

Another thing Council really needs to get right is strategic direction. The strategic plan that was in place lacked the appropriate focus, was out of date and needed improvement. In some sections, it was operational and not strategic at all. In others, it was simply not relevant. Also the world of professional regulation is changing and plans need to be focused with this in mind.

BOARD OF EXAMINERS

Our responsibility is to ensure that the process for licensure is fair and unbiased, and that assessments are valid and reliable.

In this report, we report on the assessment of experience and academics. During 2018, the BOE, in cooperation with the staff of the Registration Department, implemented the competency-based assessment (CBA) model for assessing the work experience of all engineering applicants. A similar assessment is being developed for geoscience applicants. CBA presents a list of 22 key competencies that applicants are required to demonstrate from their work experience.

CBA is a more transparent and objective process, making it easier for applicants to understand how their skills are recognized and evaluated. We endorse the CBA approach but also caution that it is early in its implementation days and work still needs to be done to further refine it.

We suggest that training sessions and materials be provided for validators and examiners. Validators have a key role in the CBA process. They are the applicants’ professional engineer supervisors and have the responsibility of attesting to the applicants’ work experience and proficiency. To perform their duties effectively, validators must have proper training to understand their responsibilities. As well, all related APEGA bulletins and policies need to be reviewed and updated to address any questions or confusion about how to apply CBA.

To move forward, Council recognized a new plan was needed. We, Council, gathered with senior staff in early 2019 for an extremely productive session of strategic planning. The public, members, Council, staff , APEGA, the membership, and ultimately Albertans will benefit from that work. The result will be a new strategic plan—one that actually is strategic, one that is fully relevant, and one that communicates Council’s goals and expectations.

That’s something all of us can look forward to. Yes, there is a positive path forward for APEGA. It is one we are very excited about, and it will be reflected in an all-new strategic plan.

A final side-note: our fellow public member Susan McRory, LL.B., ARCT, has stepped down because of other commitments. We miss her sharp wit, her clear and direct way of putting things, and her deep reservoir of experience and knowledge. Good luck, Susan, and all the best.

Respectfully submitted,

Mary Phillips–Rickey, FCA, FCPA
Georgeann Wilkin, RN, LL.B

Public Members

While the BOE has made advances in assessing applicants’ experience, such is not the case for academic requirements. It is disappointing that a more quantitative method for assessing academic qualifications is still being developed. Currently, the assessment of academic requirements is not uniform across all applicants. As mentioned in last year’s report, a uniform standard for licensure is highly important and we recommend that APEGA make this a priority.

Registration staff members are to be commended for the work they do behind the scenes in reviewing all applications before presenting them to the BOE. The system of consent polls and consent agendas is a highly efficient way of obtaining all members’ input and ensuring the best use of everyone’s time at monthly APEGA Registration Executive Committee meetings.

Respectfully submitted,

Leslie Beard
Ernest Skakun, PhD

Public Members

PRACTICE REVIEW BOARD

The Practice Review Board ensures that APEGA members using the titles engineer and geoscientist adhere to the standards, regulations, and ethics of these professions in the Province of Alberta. I was appointed public member by the Minister of Labour in 2018. I am accountable to fully participate in the work and decisions of the board. I also have the responsibility to ensure that the public’s interests are fully represented in the board’s deliberations, considerations, and decision-making processes.

APEGA staff and the other volunteer members of the board have fully embraced and given due consideration to my input.

The Practice Review Board undertakes its responsibilities and work through making recommendations involving:

- requests for reinstatement and resumption of practice
- file reviews and oversight
- member adherence to legislatively required continuing professional development
- investigations of some types of complaints
- APEGA in-service sessions and information provided to permit holders and professional members

Following a successful 2017 pilot, the board has implemented a systematic review of the Professional Practice Management Plans (PPMPs) of permit holders, including on-site audits as necessary. This new undertaking has no doubt improved the monitoring and adherence to Alberta’s legislation and regulations, and APEGA’s bylaws, standards, and guidelines

In total, 35 permit holding firms were reviewed in 2018. This represents a very small percentage of the total permit holders in Alberta, but APEGA is making ongoing efforts to direct resources to this effort. Comments and other critical input have resulted in improvements to the PPMPs of the reviewed permit holders and the monitoring of their professional staff. There has also been a ripple effect: other permit holders are taking up the mantle to improve their PPMPs.

Most permit holders APEGA has reviewed have lacked internal controls to ensure that their professional engineers

and professional geoscientists were in compliance with APEGA’s mandatory Continuing Professional Development Program, which builds ongoing competency. Other issues such as inappropriate use of reserved titles, inadequate in-service, and, in some cases, weak oversight of projects also became apparent. APEGA has offered insight and opportunities for improvement to effect changes and corrections to bring permit holders into compliance and to strengthen their control of the practices of engineering and geoscience.

There were seven Practice Review Board meetings in 2018, during which decisions were undertaken about the aforementioned practice reviews, and recommendations made about 282 reinstatement requests and 191 resumption requests. Discussions were also initiated to streamline the board’s work and to explore how to make the best use of board volunteers in conjunction with staff resources, to ensure the integrity of, and confidence in, the self-regulating functions involving the board.

I am very encouraged by the initiatives and dedication of the Practice Review Board volunteers and APEGA staff. I commend them for their professionalism and diligence, not only in undertaking their obligations but in improving their service to members for the overall benefit of Albertans.

It continues to be an honour to serve on APEGA’s Practice Review Board.

Respectfully submitted,

Maria David–Evans, B.Sc., MBA, MA, RSW

Public Member

INVESTIGATIVE COMMITTEE

Certain complaints against APEGA members and permit holders come before the Investigative Committee. These involve allegations of unskilled practice or unprofessional conduct as defined by the *Engineering and Geoscience Professions Act* (the *EGP Act*) and contrary to the public interest. The *EGP Act* authorizes the committee to perform this regulatory function for APEGA.

When a complaint of this nature is received by the APEGA Registrar & CEO, it is referred to the committee, which then appoints a panel of committee members. This panel may also include the Director of Investigations and other Investigations Department staff. The panel interviews the various parties, gathers evidence, and prepares a report for review by the whole committee, which determines whether a referral of unskilled practice or unprofessional conduct should be made to the Discipline Committee for a hearing.

If the investigated APEGA member or permit holder accepts findings of the panel that support the complaint, the panel may recommend an order proposing sanctions and refer it to a designated member of the Discipline Committee for ratification. These are called Recommended Orders, and they have the same standing and effect as actual hearings.

During 2018, the committee investigated a variety of complaints from a variety of sources: APEGA members,

permit holders, and the public. These ranged from serious, evidence-based allegations to allegations deemed to be frivolous, vexatious, or without insufficient evidence to justify a referral to the Discipline Committee. All parties to a complaint are given an opportunity to present their case to the panel.

The investigation process is thorough, challenging, and time consuming. The volunteer members of the committee and APEGA staff spend many hours gathering evidence and compiling reports. Meetings—at least five of them a year—are held in Edmonton and Calgary, and via video conference, to review reports and make recommendations.

The committee plays a critical role in the governance of the engineering and geoscience professions. It is central to the protection of the professions and the public interest. It has and continues to do an excellent job of meeting this mandate.

Respectfully submitted,

Ian McConnan, FCA

Public Member

APPEAL BOARD

The Appeal Board and APEGA staff have made every effort to ensure that the board achieved its mandate in 2018. The board met twice to review its work and how that work relates to the Investigative Committee, the Discipline Committee, and the Board of Examiners, all of which—like the Appeal Board—must meet APEGA’s legislated requirements.

Board meetings also gave us the chance to review timelines for appeals, examine planned legislative and administrative changes, and discuss changes being implemented. New board members were provided information on their role, and the board continued to develop the skills of the two second vice-chairs as part of our succession plans. The board further reviewed issues and literature relevant to appeals and the professions’ mandate to protect the public interest.

Appeal Board panels are formed on the basis of who is available for a specific hearing. Panels consist of a chair, three other APEGA members on the board, and the public member. Whether appeals are written or in-person, the Appeal Board uses reasonableness as the appropriate standard of review. The board can hear appeals related to decisions of the Investigative Committee, the Discipline Committee, the Practice Review Board, or the Board of Examiners.

Most cases relate to decisions of the Investigative Committee. In these appeals, the board can either

uphold the decision or refer the matter to the Discipline Committee for hearing.

Most appeals in 2018 involved unskilled practice or unprofessional conduct, and the public interest. Hearings dealt with a wide variety of issues, including problems surrounding the taking of exams, building inspections, and construction.

The cases indicate that members and permit holders should ensure they engage in clear communications, develop clear written contracts with scope-of-work details, and maintain clear current Professional Practice Management Plans. Such measures go a long way to prevent complaints and protect the public interest.

APEGA and the Appeal Board have met the responsibilities of self-regulation and served the public interest well this past year. I am pleased to continue as the board’s public member.

Respectfully submitted,

Harold Neth

Public Member

DISCIPLINE COMMITTEE

The year 2018 was one of change and continued growth within APEGA. The organization wound up a legislative review, with hopes that the Government of Alberta will refresh its mandate to reflect a changing regulatory environment. APEGA is building upon its strong traditions as it responds to ever-evolving societal expectations for an effective regulator.

Such is also true of the Discipline Committee. The committee embraces the expectation of enhanced transparency, as it fulfills its mandate to support the safety of the general public by helping ensure member competency, professionalism, and ethical behaviour.

The committee includes APEGA members who volunteer their time and service. At least one comes from the engineering profession and at least one comes from the geoscience profession. There is also one public member, and the committee is well supported by dedicated APEGA staff and legal counsel.

Several new APEGA members were appointed to the committee this year, for whom in-depth orientation was provided. We also faced a change in administrative staff. The seamless manner in which the work of the committee was supported through these changes is an indication of how well the values of APEGA are embedded in the organization. Staff and the committee lost no appreciation of the obligations of being a self-regulating professional organization.

In addition to meeting as a committee-of-the-whole four times during the year, the Discipline Committee’s volunteers who are also APEGA members fulfill the case manager roles.

Much of the work of our committee flows from decisions of the Investigative Committee. When a member under investigation has admitted to unskilled practice or unprofessional conduct, the investigative committee

recommends an order for resolution of the matter to the discipline committee. One of our members is then designated as case manager.

If the case manager agrees with the order, he or she meets with the investigated member to ensure the member has a clear understanding of the charges and the implications of the penalty. If the case manager does not agree with the order, the matter is referred to the Discipline Committee, which in turn will strike a hearing panel.

The Investigative Committee can also refer some cases directly to a hearing panel. Hearing panels are made up of at least three APEGA members. The public member may sit on any of these panels, and hearings are open to the public.

The practices in place ensure a fair hearing for the member or permit holder under investigation, as well as assurances for the public. These assurances are that the safety of the public is protected, and that high ethical and professional competency standards of the professions are maintained.

The Discipline Committee continues to serve the professions and the public well. I am always pleased to share my observations about the dedicated work of this committee with members of the public.

Respectfully submitted,

Muriel Dunnigan, M.Ed.

Public Member

Report of the Independent Auditor on the Summary Financial Statements

To the Members of Association of Professional Engineers and Geoscientists of Alberta

Our opinion

In our opinion, the accompanying summary financial statements of Association of Professional Engineers and Geoscientists of Alberta (the Association) are a fair summary of the audited financial statements, on the basis described in note 1 to the summary financial statements.

The summary financial statements

The Entity’s summary financial statements derived from the audited financial statements for the year ended December 31, 2018 comprise:

- the summary statement of financial position as at December 31, 2018;
- the summary statement of operations for the year then ended; and
- the related notes to the summary financial statements.

The summary financial statements do not contain all the disclosures required by Canadian accounting standards for not-for-profit organizations. Reading the summary financial statements and the auditor’s report thereon, therefore, is not a substitute for reading the audited financial statements and the auditor’s report thereon.

The audited financial statements and our report thereon

We expressed an unmodified audit opinion on the audited financial statements in our report dated March 21, 2019.

Management’s responsibility for the summary financial statements

Management is responsible for the preparation of the summary financial statements on the basis described in note 1.

Auditor’s responsibility

Our responsibility is to express an opinion on whether the summary financial statements are a fair summary of the audited financial statements based on our procedures, which were conducted in accordance with Canadian Auditing Standard (CAS) 810, Engagements to Report on Summary Financial Statements.

PricewaterhouseCoopers LLP

Chartered Professional Accountants

Edmonton, Alberta
March 21, 2019

PricewaterhouseCoopers LLP
Stantec Tower, 10220 103 Avenue NW, Suite 2200, Edmonton, Alberta, Canada T5J 0K4
T: +1 780 441 6700, F: +1 780 441 6776

“PwC” refers to PricewaterhouseCoopers LLP, an Ontario limited liability partnership.

ASSOCIATION OF PROFESSIONAL ENGINEERS AND GEOSCIENTISTS OF ALBERTA
Summary Financial Statements

(in thousands of dollars)

SUMMARY STATEMENT OF FINANCIAL POSITION

December 31, 2018

| Assets | 2018 (\$) | 2017 (\$) |
|--|-----------|-----------|
| Current assets | | |
| Cash and cash equivalents | 5,341 | 3,017 |
| Short-term investments | 4,000 | – |
| Accounts receivable | 1,371 | 1,450 |
| Prepaid expenses | 627 | 380 |
| | 11,339 | 4,847 |
| Tangible capital assets | 4,800 | 5,145 |
| Intangible assets | 1,666 | 1,320 |
| Investments | 15,837 | 16,462 |
| Defined benefit pension plan surplus (note 3) | 186 | 1,519 |
| | 33,828 | 29,293 |
| Liabilities | | |
| Current liabilities | | |
| Accounts payable and accrued liabilities | 2,139 | 1,435 |
| Government remittances payable | 134 | – |
| Deferred dues and fees revenues | 12,780 | 11,865 |
| Obligation under capital lease | 30 | 36 |
| | 15,083 | 13,336 |
| Deferred lease inducement | 1,163 | 1,367 |
| Obligation under capital lease | – | 30 |
| | 16,246 | 14,733 |
| Net Assets | | |
| Invested in tangible capital and intangible assets | 6,436 | 6,399 |
| Internally restricted legislative review | 1,000 | 1,000 |
| Internally restricted regulatory risk management reserve | 988 | – |
| Unrestricted | 9,158 | 7,161 |
| | 17,582 | 14,560 |
| | 33,828 | 29,293 |

SUMMARY OF OPERATIONS

December 31, 2018

| Revenues | 2018 (\$) | 2017 (\$) |
|--|-----------|-----------|
| Members’ annual dues | 21,857 | 19,804 |
| Permit annual dues | 3,129 | 2,143 |
| Registration fees | 1,454 | 1,709 |
| Examination fees | 1,213 | 1,584 |
| Affinity program | 2,714 | 531 |
| Fees recovered for programs | 1,135 | 655 |
| General | 649 | 288 |
| Realized and unrealized investment (loss) gain | (477) | 1,039 |
| | 31,674 | 27,753 |
| Expenses | | |
| Salaries and benefits | 14,274 | 13,104 |
| Consultants and contractors | 1,201 | 1,253 |
| IT and telecommunications | 1,966 | 2,273 |
| Legal fees | 1,215 | 1,056 |
| Travel, meals and volunteers | 1,312 | 1,241 |
| Facilities lease and management | 2,008 | 2,065 |
| National assessment and premiums | 1,199 | 1,076 |
| Exam administration | 534 | 722 |
| Printing, supplies and distribution | 750 | 773 |
| Advertising and promotion | 103 | 138 |
| Sponsorships | 165 | 62 |
| Administration | 411 | 271 |
| Bank and financial charges | 593 | 637 |
| Depreciation and amortization | 1,486 | 1,113 |
| | 27,217 | 25,784 |
| Excess of revenues over expenses for the year | 4,457 | 1,969 |

ASSOCIATION OF PROFESSIONAL ENGINEERS AND GEOSCIENTISTS OF ALBERTA

Notes to Summary Financial Statements

(in thousands of dollars) December 31, 2018

1. Basis of presentation

The summary financial statements are derived from the audited financial statements, prepared in accordance with Canadian accounting standards for not-for-profit organizations as at December 31, 2018 and for the year then ended.

The preparation of these summary financial statements requires management to determine the information that needs to be reflected in them so that they are consistent in all material respects with, or represent a fair summary of, the audited financial statements.

Management prepared these summary financial statements using the following criteria:

- the summary financial statements include all statements included in the audited financial statements with the exception of the statement of changes in net assets and the statement of cash flows;
- information in the summary financial statements agrees with the related information in the audited financial statements;
- major subtotals, totals and comparative information from the audited financial statements are included; and
- the summary financial statements contain the information from the audited financial statements dealing with matters having a pervasive or otherwise significant effect on the summary financial statements, such as described in note 2.

The audited financial statements of the Association of Professional Engineers and Geoscientists of Alberta (APEGA) are available on APEGA’s website at apega.ca.

2. Summary of significant accounting policies

Revenue recognition
Revenue is recognized when evidence of an arrangement exists, the service has been rendered, the price is determinable and ultimate collection is reasonably assured.

Specific revenue recognition policies include the following:

- dues and permit fees are set annually by Council and are recognized as revenue proportionately over a fiscal year to which they relate;
- registration fees are recognized when received;
- examination fees are recognized when the examination is presented;
- affinity program revenue is recognized when received;
- general revenue is recognized when the related services are provided or goods are shipped; and
- realized investment income includes interest and dividends and is recognized when earned.

APEGA follows the deferral method of accounting for contributions, which include grants and donations. Grants are recognized in the accounts when received or receivable if the amount to be received can be reasonably estimated and collection is reasonably assured. Grants are deferred when initially recorded in the accounts and are recognized as revenue in the year in which the related expenses are recognized. Donations are recorded when received, since pledges are not legally enforceable claims. Unrestricted contributions are recognized as revenue when initially recorded in the accounts. Externally restricted contributions are deferred when initially recorded in the accounts and are recognized as revenue in the year in which the related expenses are recognized.

3. Defined benefit pension plan

In the year-end summary statement of financial position, APEGA recognizes the defined benefit obligation, less the fair value of the plan assets.

| | 2018 (\$) | 2017 (\$) |
|---|-----------|-----------|
| Defined benefit pension plan surplus | | |
| Plan assets at fair value | 16,555 | 17,538 |
| Accrued benefit obligations | (16,369) | (16,019) |
| | 186 | 1,519 |

THE PATH FORWARD—REVISITED

You summon a self-driving car from the public transportation pool, before heading to your daughter’s soccer game. On the way, you use virtual reality to “attend” a business meeting. You walk your dog in one of your city’s hundreds of energy-conserving rooftop parks, which clean the air while creating new, usable outdoor spaces. Whenever Albertans use or connect with the human- and robot-built world of the future, they’ll be relying on the work of APEGA’s members, just like they are today. Our members will be at the vanguard of the maturing renewable energy industry. Just as important, they’ll be processing the remaining traditional resources Alberta and the rest of the world will be relying less and less upon. They’ll be testing, developing, and commercializing amazing products and technologies that improve and save lives. They’ll be propelling the economy. They’ll be protecting the public. And all of this will be accomplished under a time-tested system of self-regulation that their predecessors devised. APEGA’s roots are in the early 1900s, when engineers recognized that a lack of regulation of their profession was endangering the public. Way back then, they did something impressive and innovative. Turning a crisis into an opportunity, they proposed, to the Government of Alberta, that engineers regulate themselves. Many years after our centennial, APEGA will continue to use and improve this model. Our members created the path that is leading us to our centennial. And our members will continue creating the path forward.



THE PATH FORWARD

