Keynote Address by Gregory P Wowchuk, PEng,
Vice President of the Association of Professional Engineers of Ontario, to the Annual General Meeting of the Association of Filipino-Canadian Engineers
Friday 16 September 2022

[(Approximately 25 minutes.) CHECK AGAINST DELIVERY]

Good Evening, Consul-General Castro, AFCE board, and AFCE members:

I want to thank you for this opportunity to address this meeting of the Association of Filipino-Canadian Engineers. My friend, Gil Galang, asked me to share some facts and opinions with you tonight, and I jumped at the chance. *I will preface my talk with the statement that the facts I present are the facts, but the opinions are mine—and, occasionally, those opinions are not necessarily those of Professional Engineers Ontario.*

My name is Greg Wowchuk, and I am currently Vice President at the Association of Professional Engineers of Ontario, "PEO". I have served on its council two previous times, as a government-appointed councillor in 1997 and an elected councillor-at-large in 2018. I also served as PEO's Executive Analyst in 2011, reporting directly to the President. I have a long history of involvement in politics—going back to 1971—and I've run twice for Toronto City Council.

I personally believe many of our societal problems today are the result of too few engineers in government. *We are the world's problem solvers!* I also lament the fact that too few of us are stepping forward to serve as volunteers and councillors in our *regulatory bodies*. Last year, *three* PEO council seats were uncontested! I note that the number of candidates who stepped forward this year for Toronto City Council also has fallen.

Many engineers feel that politics is dirty and "unprofessional". *It is **not**!* It is just how things get done in our world. It may be true, however, that a few *politicians* are "dirty and unprofessional." I understand there has been some political turmoil in the Philippines in recent years, but I applaud the Filipino people for working so hard for democracy and justice.

Today, I'll be talking about the licensure process for professional engineers. I want to make it clear that the sole purpose of PEO and all other Canadian regulators is to ensure that the public receives reliable services by competent practitioners of good character. That's it. All else is gravy.

There has been, in the past, the perception that our licensing process unfairly excludes foreign-trained professionals. There are indeed requirements ("barriers?") in place, but those rules must be applied fairly and evenly, or they will become unjust.

I have to tell you, I don't know—and *can't* know—what it is like to be a foreign-trained professional facing barriers in practice and employment. I am a fourth-generation Canadian citizen. My great grandparents and three of my grandparents came to Canada from Ukraine around 1898. They—like you or your ancestors—came here because they wanted a better life. There were indeed barriers and discrimination in place, but we overcame them, because *we were **Canadians***. When I was about twelve, my grandfather took me to a father-and-son banquet at the Boy Scouts. He sang "God Save the

Queen" louder than anyone else in the room!

One way we make Canada a better place is by practising in our chosen occupation, working hard, and possessing integrity. It truly is a tragedy when a new Canadian cannot do this. It is not good for the individual or society when a professional has to drive a taxi or work in a restaurant to pay his or her bills.

I'll talk about barriers a little later. I first have to comment on the "elephant in the room": **Employment is a market-driven component of our society.** When a good or service is more plentiful than the demand, classical economics says its value will fall. If there are more candidates than jobs, employers will become more picky and salaries and wages will decline. According to figures from former PEO president Peter DeVita, around the year 1990, the number of new engineering jobs in Canada was about **6000** per year. At that time, we were graduating about the same number, and another **1500** were foreign-trained. Fast-forward to 2001, the oversupply was immense: the job market stood at around **7500**, Canadian universities turned out **9500**, and the supply of foreign-trained had jumped to **15 thousand**!

This mismatch clearly was the result of misguided policies by the federal government, which had been relying on dire predictions by Engineers Canada that a *shortage* was imminent. Engineering professionals got lots of extra points on their immigration applications. Concurrent with this period from 1990 to 2000 was a significant "de-industrialization" in Canada, as manufacturing plants were relocated to the US, along with the high-level engineering jobs. This was the direct result of the Canada-US Free-Trade Agreement, which many Canadians—including I—opposed.

South Etobicoke, where we are gathered tonight, was not always just a residential community of high-rise buildings. It was an absolute industrial *powerhouse*! Campbell's Soup Company, Continental Can, Goodyear Tire and Rubber, Anaconda American Brass, Canadian Wallpaper Manufacturers, Trane Heating and Air Conditioning, C-I-L, and many more were here. *New Toronto in the 1950s boasted the highest value of manufacturing per square mile in all of North America!*

The mismatch between engineering jobs and graduates also has grown for those who attended *Canadian* universities: As I stated, around 1990, the two numbers were about equal. By 2011, however, the number of those getting engineering degrees was about *five times* the number of engineering jobs! A study by the Ontario Society for Professional Engineers about six years ago showed that only *one-third* of graduates of engineering programs got work in engineering. Another third were in jobs such as real estate, insurance, banking, etc, which benefitted from our excellent education and problem-solving ability—but they were not engineering. Sadly, another third ended up at Home Depot, Starbucks, or unemployed!

Now, licensure as a professional engineer is definitely connected to the engineering labour market. For one thing, why bother getting a licence if the job opportunities are scarce, or if you will be competing against many others who do not bother getting licensed, yet are practising? Currently, Ontario has about 200,000 unlicensed engineering graduates, and only about 86,000 who have the PEng or limited licence. Of that 86,000, probably *two thirds* could drop their licence and still keep working!

Now, when we examine the situation for foreign-trained engineers, we cannot ignore these grim statistics. But if we are to be a just society, we must ensure that *fairness* is present in the licensing process and that no undue barriers to licensure exist. I personally believe in equality of *opportunity*,

not equality of *outcome*. Many Filipinos who came to Canada have worked hard and deserve their success, just as my ancestors—who braved the cold winters, mosquitoes, and isolation on the Canadian prairies—did.

I note that foreign-trained engineers have programs in place to help them get licensed. Engineers Canada has one such program. You can visit EngineerHere.ca to find out more about it. Your organization, AFCE, also has a program in place, and the consulate in Toronto has publicized it to your community.

The government of Ontario, for some time now, has pressured the professions to remove barriers to licensure. The Fairness Commissioner and PEO have worked together to identify and dismantle barriers since 2019. Amendments in 2021 to Ontario's Fair Access to Regulated Professions and Compulsory Trades Act—known as FARPACTA—have set timelines for professions to remove requirements that applicants have *Canadian* work experience. Professions may opt out of this requirement if they can demonstrate that the public interest would be harmed. PEO has chosen to *comply* with this requirement. FARPACTA also is requiring that undue delays in processing licence applications be eliminated. PEO is working hard to accomplish this.

Here is PEO's official statement on FARPACTA:

"Schedule 3 of the Working for Workers Act, 2021, has resulted in amendments to the Fair Access to Regulated Professions and Compulsory Trades Act (FARPACTA), including a provision for the removal of Canadian experience from the overall licensing requirements for certain regulated professions, including professional engineering. The FARPACTA amendments, along with the associated Regulation 261, anticipate that the affected regulatory bodies will require time to implement the needed changes to regulations and licensing procedures to remove Canadian experience requirements or provide a reasonable alternative. All regulated professions to which FARPACTA applies, including PEO, will have until December 2, 2023, to achieve full compliance. Our existing engineering work experience requirements will remain in effect until further notice, while efforts to comply with the new FARPACTA provisions are in progress."

There are five requirements currently for licensure by any of Canada's provincial engineering regulators:

- **Academic:** You have obtained a suitable engineering education.
- **Work experience:** You have supervised work experience that demonstrates your ability to apply engineering knowledge.
- **Language:** You communicate competently in at least one of Canada's two official languages.
- **Good character:** You have demonstrated truth, honesty, and trustworthiness in your conduct.
- **Professionalism and ethics:** You have passed the Professional Practice Examination (PPE).

The big change in these requirements has been in "work experience". That experience now may be accumulated outside of Canada. The main hurdle, then, is *academic history.*

Here are some statistics about applications: Only **0.4 %** of PEO's 2020 applications came from those educated in the Philippines, while India, Iran, China, Egypt, Pakistan, the UK, Nigeria, Brazil, Bangladesh, and Lebanon comprised **25.5 %**. Canadian-educated applicants amounted to **42.2 %**. *The vast majority of applicants at PEO in 2020 were not educated in Canada.* This has placed a

considerable burden on professional regulators: How do we ensure that the public can absolutely and confidently rely on our practitioners? How do we assess the programs of hundreds of engineering schools in 195 countries?

Engineers Canada traditionally has accredited foreign educational credentials, formerly via the Canadian Engineering Qualification Board (CEQB), then by the Canadian Engineering Accreditation Board (CEAB). The provincial regulators who comprise Engineers Canada usually accept the assessments of the CEAB, but they are not bound to. With respect to the Philippines, my understanding is that the education span—from grade 1 to bachelor's degree—is a year shorter than that in the US and Canada, which is at sixteen years. When I applied for my PEng in 1987, I had had *seventeen* years of education, because Ontario had a grade 13! If a provincial regulator feels any applicant, domestic or foreign, does not have suitable quantity and quality of engineering education, the applicant may be required to take course(s) designated by the regulator.

There is a phenomenon which is rather unique to engineering: Many who practise engineering do not bother to get a licence. For example, many unlicensed engineers perform design and maintenance on manufacturing equipment. In Ontario, this is allowed by something called the "Industrial Exception". This is embedded in our legislation, and most companies like it—a lot! About a decade ago, PEO lobbied the provincial government to remove this exemption. The lobbying was quite successful, except that PEO neglected to get buy-in from the manufacturing sector. The bill containing the repeal made it all the way through the legislative process, and was poised for Royal Assent, when efforts by the Canadian Manufacturers' Association and others torpedoed it.

The other factor affecting the number of licensees is that there is debate about what is "real engineering". Many engineers—myself included—do work which does not require their engineering stamp. Many unlicensed engineers do work inside large companies, sometimes with token supervision by a licensed engineer. These larger companies have the resources to hold PEO at bay if they so choose. Many years ago, PEO went after Microsoft over the latter's use of the protected title, "engineer". Microsoft was certifying persons with only one year of training as "Microsoft Certified Systems Engineers". Now, PEO has immense legal resources—but it is no match for Microsoft!

My point is that many engineering graduates choose *not* to get licensed. It's just not worth the hassle to them.

I want to comment on the so-called "PEAK" program now being implemented by PEO. Its stated purpose is to ensure continuing competence among our practitioners. I am on record as being categorically opposed to this program. This was the main plank in my platform last year, and I was elected with **61 %** of the vote. Professor Roydon Fraser also is opposed to "PEAK", and was elected President-Elect with **54 %** of the vote. Our membership clearly resents the fact that PEO promised that the membership would be involved in development of a professional-development program, and that the final product would be subject to a membership referendum. In 2020, *our council reneged on that promise*, and decreed that the program would be imposed without member approval. It is slated to become mandatory as of January 1st, 2023.

I do not believe this program will improve the quality of engineering performed in Ontario. I fear that it will prompt the *de*-licensing—both voluntary and involuntary—of many members. I also believe that this is an unnecessary regulatory burden which further will dissuade graduates from applying for

licensure. It is horribly bureaucratic. It is a solution in search of a problem. I have always maintained that practice standards and years of experience produce the best professionals. If I had to go for heart surgery, I'd choose the surgeon who has done one hundred of them over a doctor who has done ten and taken a CPD course!

In Canada, the professions have been blessed with the gift of self-regulation and self-governance. This style of professional regulation is unique in the world, and it works *exceedingly* well. It is in the interest of every practitioner to ensure the public receives the best quality of service. This self-interest was acknowledged when the Legislature created APEO 100 years ago. I lament that our self-governance is being eroded by PEO in recent years. Power is gradually being shifted away from the membership to the Council, and from the Council to hired staff. The contribution of hundreds of volunteers is being eroded. Peer review is an essential component of self-regulation, yet it is being neglected.

I will close by saying it is up to each of us to act to make engineering the great profession it should be. Lawyers and accountants merely divide up the pie; *engineers make the pie bigger.* We are the *creators* of economic wealth and prosperity in our society. Professional regulation in Canada has historically produced a reliable and venerable product. **We make Canada better when we are active parts of those professions.**

I applaud your organization for connecting your community with this great profession. I thank you for inviting me to join you tonight. I ask that you each become active in the politics related to engineering. Become active in your PEO chapters! Volunteer for committees! Run for PEO Council! **Run for office in municipal, provincial, and federal elections!**

Cherish the freedom and prosperity we all enjoy in this great country, and work to defend them. Demand that our governments institute a visionary industrial policy which includes engineering.

Let's Make Engineering Great Again!