

Why Should Professional Engineers Be Involved in Government and Public Policy?

The past ten years have witnessed a fundamental and dramatic change in the ethos of Ontario's engineering profession, from one that was, for the most part, focused inwardly on the technical workings of the profession, to one that places equal emphasis on the external environment and the constraints within which engineering takes place. This change is manifested not just in the creation, ten years ago now, of an independent advocacy and member services body for Ontario engineers - the Ontario Society of professional Engineers (OSPE), but also in the activities of the professional regulator - Professional Engineers Ontario (PEO).

With the inauguration of its current Government Relations Program late in 2004, Council asserted PEO's role as a stakeholder in government and public policy. It even fought the Ontario government successfully over an ill advised amendment to the Building Code regulations. And more recently PEO took the initiative of establishing the Ontario Centre for Engineering and Public Policy (OCEPP) with a view to expanding its influence on public policy.

It has not always been this way. For much of its existence as a self-regulating profession, engineering in Ontario has "stuck to its [regulatory] knitting" and tried to stay below the radar screen of government and the general public. Just a few years ago the prevalent opinion among PEO's leadership was that PEO had no place speaking out on matters of public policy or trying to inform or advise government. To date, with very few exceptions, engineers have been largely unrepresented in public office at any level of government.

This is not a new issue for us engineers. I came across an old issue of the Association's magazine (a predecessor to *Engineering Dimensions*) from April of 1954 that bears the masthead "*Silent Service Is Not Enough*". It seems as though engineers have long had a tendency to keep their heads down – to focus on problems that lend themselves to rigorous analysis and technical solutions, and to avoid those that are less well defined and subject to the vagaries of public opinion. I often hear engineers express disdain for politics (and politicians) on the grounds that much of what goes on in the political realm is not based on fact, never mind logic or sound reason. Two results of our reluctance to wade into the sphere of government and public policy have been (i) a lack of understanding on the part of the public in general - and governments in particular - of what engineers do, how they do it, and why it is important, and (ii) a profound lack of influence as compared to the other senior professions.

I believe this long overdue culture shift reflects the aspirations and expectations of today's engineers to hold a more prominent place in our society. But it is not primarily a matter of self-interest; rather it is a desire to contribute our expertise more fully in order to improve how society deals with the complex issues facing us, many of which have significant scientific and technical components, and all of which require a disciplined approach to their definition, risk assessment, and optimal solution. Canada's professional engineers have an enviable record of serving and protecting the public interest – mostly without fanfare – and I assert that engineering involvement in

government and public policy is much more a matter of public interest than of professional or personal self-interest.

In a recent episode of TVO's *The Agenda* with moderator Steve Paikinⁱ, PEO's President and other invited guests discussed the subject of what the best professional preparation for politics is, and what advantages engineers bring to public life. I encourage you to view this program if you have not already done so.

But why would society be better off if more professional engineers were involved in public politics, and there were more engineering input in public policy formation? What are we really trying to achieve with our profession's government liaison and public policy programs? **I submit that our overriding goal in all of this is nothing less than to raise the bar on public governance and policy by injecting into it some engineering discipline.** Let me explain what I mean.

In my opinion, our standard of "good government" leaves a lot to be desired. The average member of the public appears to lack confidence in our democratic institutions. Our legal / judicial system often has little to do with justice. Most days, parliamentary debate is a joke, if not an insult. In public opinion polls, "politician" does not even make the list of most trusted occupations. How often have you heard someone say "It doesn't matter who gets elected, they'll end up screwing us just the same!"?

You may recall Sgt. Joe Friday on the TV series *Dragnet* saying something like "Just the facts, ma'am – just the facts". In these days of spin-doctoring, the line between opinion and fact is often blurred, especially if the subject at hand is at all complex. The late U.S. Senator Patrick Moynihan is quoted as saying to an opponent in a debate: "You're entitled to your own opinion, but you're not entitled to your own facts". Engineers like to deal with established facts, with realities. That may account for why many of us are not attracted to the political process, which we may find to be more often BS-based than fact-based. Politicians at all levels try to concoct phony issues that they hope will play well in the media, and if they do, then pretend to address them with ill-conceived policies and legislation, all the while ignoring the real problems in society that the electorate expects them to address. Under this process, we the public end up over time with more laws and regulations, more government bureaucracy, more unsolved problems, less money in our pockets, and less freedom.

If you agree with the above admittedly jaundiced assessment, you may think that it is an inevitable part of democracy. But I say it doesn't have to be that way. We can do better! We can help to improve the quality of our government by:

- Injecting some engineering discipline – particularly the engineering approaches to problem solving and risk assessment and mitigation - into the legislative and public policy processes;
- Providing unbiased reviews of, and proposals for, public policy based on sound scientific / technical analysis;
- Ensuring that that issues and policies for public debate are framed properly based on known facts and sound analysis;
- Encouraging a higher standard of conduct toward each other on the part of elected representatives;
- Insisting on a standard of honesty and integrity for elected representatives, and refusing to re-elect those who breach it.

I find encouragement in this view from U.S. President Barack Obama, who in the prologue to his book *The Audacity of Hope*ⁱⁱ, writes “**I wish the country had fewer lawyers and more engineers.**” Obama doesn’t elaborate on this point directly, but the theme of his book is that our current system of highly polarized, partisan politics – which we in Canada share with our neighbours to the south – is not solving many of the real problems of society. We’re not spending enough time and energy trying to build consensus on the outcomes we want as a society. Instead, our political energy goes toward arguing the merits or demerits of various solutions or policies, and attacking the values and integrity of those who propose different solutions and policies. From the point of view of good government and sound public policy, the whole process is backwards! Instead, we should be trying to develop a shared vision of the society we want and the role of government in it (the *objective function*, as I like to call it), then selecting the public policies and interventions that will best achieve it. Start by shifting the public debate to shared values and aspirations - about which, I contend, there is fairly widespread agreement in the population at large - then work together to choose the optimal strategies and plans to get there.

Let’s look at some specific objectives for PEO’s Government Liaison Program (GLP) and the Ontario Centre for Engineering and Public Policy (OCEPP).

1) Educate legislators and public officials on the important role of the self-regulating engineering profession in society

Early in my term as PEO President in 2004, I met with then Attorney General Michael Bryant to discuss issues of concern to the profession and to request his assistance in addressing them within the Government of Ontario. In response, he noted that engineers and engineering issues were largely absent from legislators’ radar screens, and challenged us to “educate” all members of the Ontario Legislature on the important role of engineering in society and on our public policy issues.

It is important to recognize that the challenge of maintaining “face-time” with politicians is an ongoing one. In politics it is even truer than in other areas of life that “out of sight is out of mind”. With this in mind, we try to pair volunteer professional engineers across the Province with their local politicians at all levels of government, and encourage them to meet regularly and build relationships of trust.

It is only through such ongoing relationships that the engineering profession can hope to avoid erosion of its self-regulating status and other forms of collateral damage from otherwise well-intentioned government initiatives. Unfortunately, our uniquely Canadian model of self-regulating professions is not understood by most legislators and government officials, even those who are themselves members of such professions. So a large part of our challenge is to reinforce constantly how professional self-regulation is intended to work, and its inherent value to the public.

2) Prepare professional engineers for involvement in government and public policy

In terms of education and experience, most professional engineers have had limited exposure to the political and public policy processes. So an important goal of the

GLP is to orient volunteers to the worlds of both the politician and the “policy wonk”. What does it take to get nominated for and elected to public office? What factors motivate and influence politicians? How do issues get selected for government attention? How do public policies get shaped? For most of us volunteers, there is much to learn.

In addition to understanding the backdrop of government and public policy, it is essential to have written statements and talking points for any positions that the profession is trying to advance. Nothing will undermine our influence like an inconsistent message; so GLP volunteers must be thoroughly familiar with those positions and must have the discipline to stay on point.

Further preparation is also available through PEO’s “Candidates` Colleges” for those members considering running for public office. PEO Council has set an ambitious goal for the GLP to see 11 professional engineers stand for election to the Ontario Legislature in 2011.

But let’s not lose sight of the ball: **the goal is not to make engineers behave like politicians; the goal is to make politicians behave like engineers.**

3) Provide an engineering perspective on public issues

Because engineers are not “front and centre” in most public debates, technical realities are easily overlooked, ignored, or even misrepresented. But the problem here is not simply a lack of scientific or technical input. Often, the engineering perspective is replaced by the input of non-engineers who have scientific backgrounds but who lack the engineer’s disciplined approach to risk assessment and problem solving. It is for the latter that the engineering voice is most urgently needed. Let me cite an example.

The future of Canada’s aging nuclear reactor facility at Chalk River that is critical to the supply of medical isotopes is currently being considered by the federal government. Until the incident last year in which that reactor was shut down and its isotope output became unavailable, I’m sure most Canadians were unaware of its existence. And today, even with the media attention that occurred, the average Canadian - who will hopefully never encounter a medical isotope – doesn’t understand the importance of that facility to our health and well-being, our prosperity, and perhaps even to Canada’s sovereignty. As a result, the limited public discussion has been focused on things like the cost of bringing the reactor up to current standards, the possible privatization of AECL, other potential non-domestic sources of the needed isotopes, and so on. The “problem” appears to be defined in terms of AECL’s ability to maintain the reactor, conflict among government bureaucrats, and cost to the public. The risks associated with not having a domestic research reactor facility under the control of Canadians are scarcely mentioned. And because the government does not see this as a burning public issue, and just wants to get it off the public radar screen, it is not receiving the serious attention it merits. The strong voice of Canada’s professional engineers is required to ensure that this matter is resolved in the best long-term interest of Canadians taking into account all relevant considerations.

In a similar vein, there are other technologies and production facilities that may be critical to Canadians' ability to survive in a critical situation such as the next pandemic. Perhaps unwittingly, we have already given away control of many of these in response to the pressures of internationalization. I do not believe that there has been adequate assessment of the risks to Canada's self-sufficiency and sovereignty of divesting control of our critical assets. Before permitting the sale or off-shoring of critical Canadian assets, technology, or production facilities, we need to evaluate carefully their significance to our national interest from all points of view (not just economic), and the risks associated with losing them. I believe professional engineers are ideally equipped and positioned to alert the public to such issues and to ensure that they are dealt with in the public interest, broadly defined. In this regard the engineering community can help to ensure that we are "minding our [Canadian] store".

4) Promote Sound Policy Alternatives

Over the years I have often heard colleagues criticize various government policies and initiatives - sometimes vehemently – along with the politicians and bureaucrats responsible for them. It seems our antennae are highly tuned to pick up on ill-conceived, illogical, unfair, and impractical ideas. I must confess to having joined in the criticism myself on occasion. But clearly, if we are going to complain, we need to be prepared to say what we think should be done instead, and why.

There already exist numerous organizations with a mandate to advocate public policy; so one may well ask why we need to add the engineering profession to the list. I believe there are some compelling reasons why the voice of the self-regulating engineering profession needs to be heard:

- Many other voices (including some of the loudest) are politically partisan. Ours is not.
- Many other voices are motivated largely by self-interest. Ours is motivated by an overriding commitment to the public interest we have pledged to protect.
- As already noted, we bring to the table highly developed skills in problem definition and solution and in risk assessment and mitigation, that are often lacking in public policy formation and debate.

I therefore assert that we should be putting forward well-researched, well-developed public policy alternatives in areas where we have credible expertise and where we think others may not have it right. **It was for this fundamental purpose that the Ontario Centre for Engineering and public Policy was created.** I believe that, in its short existence, the Centre has done a good job of encouraging engineers to become engaged in public policy, and of providing them with an outlet for expression of their ideas and research (*the Journal of Engineering and Public Policy*). But I have yet to see much improvement in government policy as a result of our efforts.

How will we measure our success in achieving the above objectives? I believe in accountability for results; so it is important that we agree on the outcomes we want to see and on the success indicators we are going to measure / assess to determine how well these programs are performing against objectives, and to adjust and refine them as necessary.

In order to assess impact, it will no doubt be necessary to survey stakeholders, governments (politicians and senior public servants), and the public at large as to:

- Their awareness of the government liaison and public policy initiatives (are they being touched by us?)
- Their understanding of the role of the self-regulating engineering profession (do they understand who we are why we exist?)
- Their understanding of how engineering serves and protects the public interest;
- Their awareness of the public policies advocated by the profession.

Another simple measure of success in terms of government involvement by engineers is the number of professional engineers who offer themselves as candidates – and the number actually elected – in public elections at all levels of government, as well as those in senior public sector positions and those serving on public boards and commissions. **I was pleased to see that PEO circulated this information during the recent Ontario municipal elections.**

I conclude with a few suggestions on how these initiatives should be organized and governed – a subject that has received considerable discussion of late within both PEO and OSPE, with little resolution.

Both PEO and OSPE have established and maintained government liaison and public policy initiatives. This is not inherently a bad thing, so long as the two organizations are not perceived to be in conflict when there is no real conflict of position. A few members have suggested that government relations and public policy are “advocacy”, and therefore the exclusive purview of OSPE, but I contend that such a narrow view of advocacy does not serve the profession (neither PEO nor OSPE) or the public. **The only constraint on advocacy by PEO is that it cannot advocate for the self-interests of members of the profession** (OSPE’s primary raison d’être). In my view, PEO continues to have the primary responsibility within the profession to advocate on behalf of the self-regulating profession, and to advocate in the public interest for sound public policy where engineering is concerned. This view happens to coincide with the practical reality that PEO has more resources than OSPE – financial and human – to put to advocacy. So it makes sense to me that OSPE should focus its exclusive advocacy efforts on member issues related to such matters as employment and compensation, and collaborate with PEO on the rest.

In terms of government liaison, it is extremely important that all organizations within the profession (including CEO, Engineers Canada, OSPE, and PEO) avoid delivering mixed or conflicting messages around the same issues unless their respective interests really conflict (possible, but unlikely). We do not want to give governments or the public any reason to ignore our input, and emitting mixed or conflicting messages provides them just such a reason. To avoid this undesired situation, engineering organizations must communicate effectively with each other and collaborate wherever possible.

I believe that, in the interest of its long-term sustainability, PEO’s Government Liaison Program should be under the oversight of a separate standing committee of Council created for that purpose, with dedicated staff support (an internal Manager of Government Relations).

As originally conceived, the Ontario Centre for Engineering and Public Policy was to be a resource of the Ontario engineering profession at large, with the support of all stakeholders. The model assumed that PEO would house and significantly fund the Centre on an ongoing basis, but that other organizations and firms who support the goals of the Centre would also contribute resources to sustaining it. Once established, OCEPP was to be “spun off” from PEO as a separate organization with its own directors elected by “sustaining member organizations”. (It was never intended to be a PEO department under the CEO/Registrar.) I believe this model is still appropriate and achievable.

In conclusion, I look forward to the day when the engineering profession in Canada is regarded by Canadians and their governments as the premier profession in terms of its contribution to good government and sound public policy.

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ⁱ You can find a link to view this program, entitled *Engineering Politics*, from TVO archives on PEO’s main web page at <http://www.peo.on.ca>

ⁱⁱ Obama, Barack
The Audacity of Hope: Thoughts on Reclaiming the American Dream
New York, Random House, 2006