



YOUR FUTURE IN NUCLEAR ENERGY

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Women in Nuclear Canada
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Thank you Susan for your kind introduction and good morning everyone. It is a pleasure to join all 140 WiN delegates today, a year after becoming Chair of the AECL Board.

As you are well aware, the nuclear renaissance is unfolding before us and with it comes a wealth of opportunity for each of you, and for generations to follow.

Nuclear is being embraced globally for its environmental benefits and its ability to reliably address a growing need for base load power.

Economic and industrial growth will lead to almost a doubling of global energy demand by 2030. From an existing base of 440 nuclear reactors worldwide, more than 200 additional reactors are in varying stages of development. That is just a start. There could be many more beyond that.

Here in Canada, we're on the threshold of a once-in-a-generation opportunity: the rebirth of a vital sector. Projections indicate that Canada will construct 20 to 30 gigawatts of nuclear generation by 2030.

Ontario is expected to make its decision on a preferred nuclear vendor this year. New Brunswick, Alberta and Saskatchewan are considering following suit with the construction of new reactors.

This nuclear resurgence presents Canada and the more than 120 Canadian nuclear industry suppliers that make up the Organization of CANDU Industries – some 30,000 employees - with extensive commercial, economic and employment advancement opportunities domestically and internationally.

And this doesn't begin to account for the many thousands of direct and indirect jobs that will arise from nuclear new build construction.

For example, to build a Canadian twin-unit Generation III+ Advanced CANDU Reactor, AECL alone would need to grow its total staff complement by approximately 1,200 people, including 700 full-time engineers. Of those engineers, 10 per cent would be new graduates. Other positions required will include those in supply chain management, procurement, project management and training. Additional domestic new build contracts constructed concurrently would require a similar ramp up of talent in Canada and internationally.

Our industry's renaissance is causing a demand for skilled labour at all levels and in large numbers. This demand for resources will occur as the labour market for highly qualified workers becomes increasingly globalized. With other countries - particularly the United States - planning enhanced nuclear programs, key parts of Canada's local skill base could be hired away.

This concern for available resources and expertise is compounded by a Canadian nuclear industry retirement rate of about four per cent per year, as projected to 2016. Many of those retirements are in middle management and more senior roles. The pool of future leaders – rising managers in their mid-30s to mid-50s - remains small, leaving us with the need to quickly identify and cultivate next-generation leaders.

To address the challenge of growth and attrition, the nuclear industry must become forward looking. A major movement is on to accelerate the transfer of knowledge from veteran leaders and employees to the next generation. And, with the same level of urgency, new ways to expedite the availability of talent to fill the resource gaps are being pursued.

Now, does anyone here today doubt that your experience, energy and expertise as individuals and as WiN, the organization, are needed, more than ever?

Seize the moment now.

Nuclear is a front-line, cutting edge industry where there are still many new areas for discovery and opportunity. As you know, our sector provides a wide range of careers and advancement opportunities in research and development.

For example, AECL recently signed a collaboration agreement with China to develop advanced fuel cycle technologies, including recycling recovered uranium and the use of thorium in CANDU reactors. We're also partnering with the University of Ontario Institute of Technology and the U.S. Department of Energy to develop hydrogen technology driven by Canada's Generation IV reactor. This effort could result in real-world solutions for large-scale hydrogen production and with it, a high-technology knowledge base.

Design engineers, technicians, technologists, project managers, trades, communications and community outreach specialists - all of these are key roles that will be in high demand.

But what role, as an individual, do you want to play? How can you prepare yourself to take full advantage of the career opportunities that lie ahead?

First, by having a plan, and a strategy to achieve it.

As Roman philosopher and statesman Seneca once said, "Our plans miscarry because they have no aim. When a man or woman does not know what harbour he or she is making for, no wind is the right wind."

Every person in this room can benefit by stepping away from their day-to-day function and spending some time reflecting on their current career and developing a plan for their future. Perhaps consider a lateral move into line supervision, take on a project lead role to gain management experience, or build onsite customer relations experience toward becoming an account manager.

Early on, I realized the value in developing such a plan during my first full-time job after university as an Assistant Editor - working on the Canadian Oxford dictionary. I was stymied in a role that would take years before I would be given challenging work to do. So, I decided to take control of my destiny, identified an alternate job opportunity in educational media and pursued it. The urgency in my decision to leave was reinforced by the fact that it had taken the company five years just to edit up to the letter "E!"

So, how does one go about developing this plan? As Gloria Steinem once said, "Without leaps of imagination, or dreaming, we lose the excitement of possibilities. Dreaming, after all, is a form of planning."

So, imagine your next job. Get suggestions on what's required in this new position and build a bridge, in your mind's eye, on how you're going to get there.

Become an expert on the new paths possible to reach your destination and you will become better prepared for your move. Upon attaining your goal, continue to identify industry trends and new opportunities for further advancement. And, to avoid becoming stale in a job, consider an 18 to 36 month timeframe before moving on to a more challenging or different role. Explore the potential for expanding your current role too.

I've embraced this philosophy throughout my career, which has led to senior executive roles, a wide range of public and private sector experiences, leading an international consulting practice, as well as serving as Chair or Member of 18 Boards of Directors. This has not been based on a progression in one sector or company, but a range of roles, from writer/editor, media entrepreneur, to program and financial policy analyst, director of programs delivered to many customers, plus a range of portfolios, from post-secondary education to consumer and commercial relations, health, transportation and energy, from start-ups to turnarounds of long-standing corporations.

Learn, learn, learn. I've always been a great proponent of "just in time" education, that is supportive of a career goal or change.

We all need to re-invent ourselves regularly.

Upgrading education to achieve career targets, building upon a track record and credentials on a continuing basis -these stepping stones allowed me to establish my own consulting firm, focused mainly on public-private-partnerships and board governance – timely issues of increasing significance in the business world.

With this new knowledge and an eye on using it to govern organizations, I went back to school in 2005 to upgrade my skills, becoming a Certified Corporate Director through the University of Toronto's Rotman School of Management, along with my practical experience serving on many public and private Boards of Directors.

This commitment to continuous, life-long learning need not be restricted to taking courses. It can include reading, attending seminars, seeking out mentors or learning from your peers. Any way you can, stretch yourself.

Develop core skills that employers will value. For example, the ability to communicate complex thoughts and ideas in a clear, concise manner is crucial to succeed whether in a management role and or communicating with your customers. Use these skills you have acquired to your advantage in your career development.

Network. Given your involvement with WiN, I'm quite certain you already understand this concept. And, you would know that the vast majority of available jobs don't make it to the job boards or employment websites. They're obtained through word-of-mouth, and who you know and who knows you - third party referrals are crucial to building your career.

Even if you're gainfully employed and not looking to make a move, expanding your network on an ongoing basis will provide you with resources to tap into when it's time to make your move. The greater your networks, the greater your professional opportunities will be.

Give back and develop others. Having a successful, rewarding career is not solely about you and your aspirations. What many of us in the workplace tend to overlook is the importance of the people around us, and the need to inspire, support and empower these individuals. Take time to recognize your colleagues and their efforts, assist them in their endeavours to succeed, share your knowledge.

The adage, "you're only as good as the people you work with" is very true. Hire those more capable than you, so you can learn from their knowledge. Develop the leaders of tomorrow by mentoring your staff or others who will benefit from your expertise and coaching.

Years ago at the Ontario Women's Directorate, I introduced a program called Open Doors to provide a speakers' bureau of talented women "ambassadors" from a wide range of occupations to reach out and talk with girls and women in elementary and secondary schools, at Career Fairs, clubs and associations. Their focus was to inspire and encourage students to reach for a wide range of career opportunities they could consider – in engineering, science, as professionals, trades people, or technicians. They influenced many young women to take math, physics and chemistry, and qualify for post-secondary education and careers they had never dreamed of. The ambassadors benefited as much as the young women.

When you *do* plan to move on from a position, plan an exit that is as seamless as your entrance was by developing a staff member who has the capabilities to become your own replacement. Share your knowledge to ensure it's not lost after you've moved on to another role. Practice succession planning to help attract, retain and develop a top-notch staff and ensure continuity and growth for the company.

And finally, benchmark your progress on a regular basis and refine your career plan. Did you achieve what you had set out to do? If not, why not? Have a career-planning friend you meet annually to review progress and set next year's goals. Ask for feedback from supervisors and your peers. This will ensure that you fully understand how far you've come and what more you need to accomplish in order to attain your long-term career goal.

Now, you've heard a few thoughts on how you, as an individual, can determine what role you want to play in this nuclear industry; how you can set your course and steadfastly reach your given harbour.

Next question:

What role, as an organization, do you want to play in it?

WiN Canada offers an opportunity for learning from a diverse membership: those with management, professional, administrative and technical skills in nuclear and related fields.

With objectives to promote nuclear awareness, contribute to knowledge and experience exchange, and heighten career interest in nuclear engineering and related professions, WiN Canada has laid the foundation from which it can make a significant contribution to our industry.

But what is your game plan? How are you going to get there? How can you best deploy your resources?

Now is the time to determine precisely what harbour you want to reach – to develop, at the WiN Canada executive level, a long-term business plan and an assertive strategy that will take advantage of the prevailing winds, ensure you stay on course, and arrive at your destination.

In developing this plan, here are a few questions that you may wish to consider.

1. What, as an organization, do you dream of achieving within the Canadian nuclear industry? What is the big WiN view, your big vision? You're not an industry association. Do you want to be a catalyst for change? A connector? A generator of ideas? Or, do you want to be a career springboard? Do you want to become an influencer of public opinion or of decision-makers? Will you need partners to achieve your vision?

WiN Canada's focus on communication and networking within your organization has served your members well to date, but would looking outward by partnering with business, educational and professional organizations, such as the CNA, CNS or associations related to various disciplines, strengthen your ability to achieve your goals? There are more than 100 member companies of the Organization of CANDU Industries that during this growth period will share similar challenges, including attracting resources.

2. How can WiN Canada assume a larger role in making the public, especially women, aware of the benefits of nuclear and radiation applications and its safety to the public and the environment?

To a good portion of the public, the subject of nuclear remains shrouded in mystery and myths. Clear, consistent, factual information for use by members can help address those issues. Enhancing existing communication tools by creating a toolkit of resources for members, like core speeches, presentations, fact sheets, etc., may be an appropriate option to consider.

3. Does WiN Canada want to play a greater role in filling the supply and demand gap; in recruiting a long-term workforce for our growing industry; in encouraging young women and men to enter the industry and help them build their careers?

Women are the largest untapped talent pool available to our industry. At AECL, women represent about 25 per cent of our engineering and technical workforce. This is consistent with the experience of other employers in our industry. In Canada's post-secondary engineering programs, women represent only about 20 per cent of students enrolled. High school students, meanwhile, are making decisions as early as grades 9 and 10 on courses relevant to their preferred career option.

How can we reach these students with the message that a career in nuclear is a viable option? We need to encourage young women and men to enter the industry and build careers. Ambassadors for this cause are needed. Initiatives such as student internships for those considering entering the industry or mentorship programs for new graduates may be among your considerations.

And finally, do not underestimate how vital you could be, as an individual and as an organization, in opening doors to education, support and change. Recognize this power and build upon it.

My thanks go out to all the women and men who are volunteering their time and energy to WiN and this amazing future we have in nuclear energy.