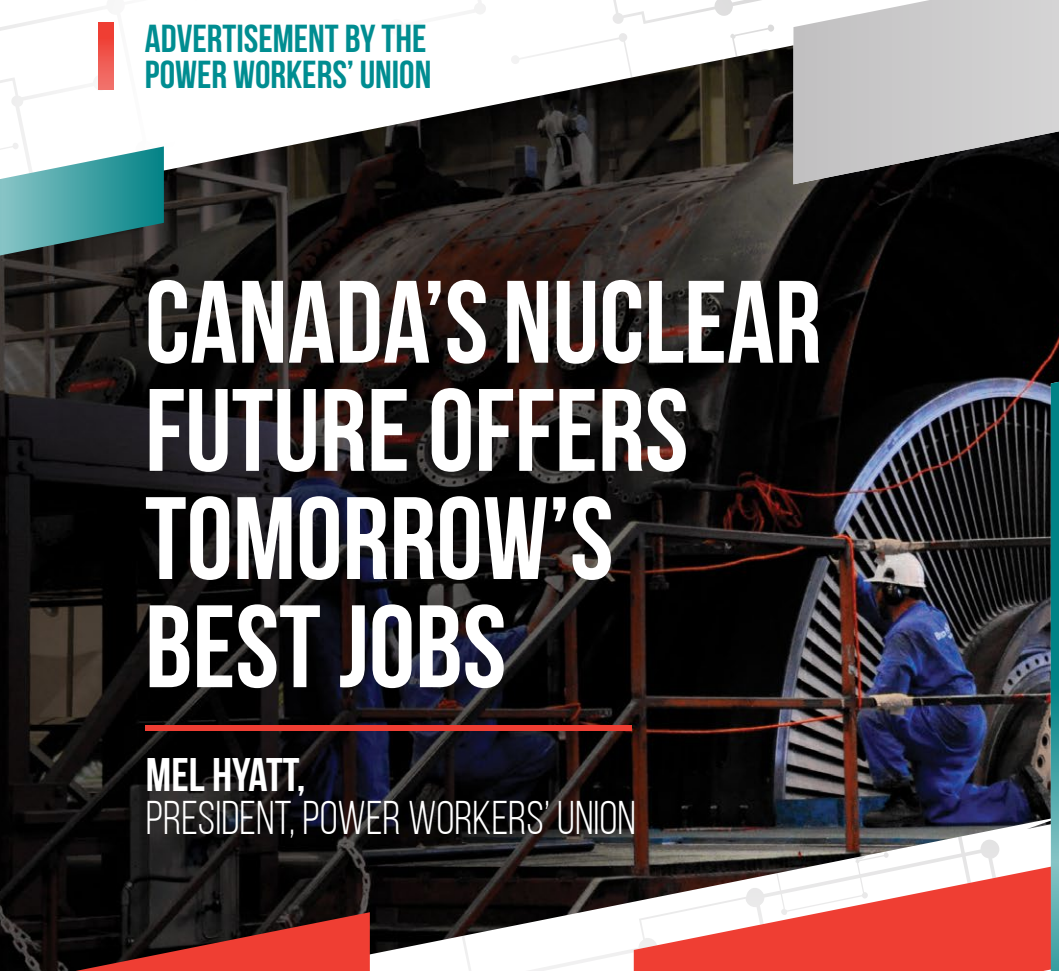
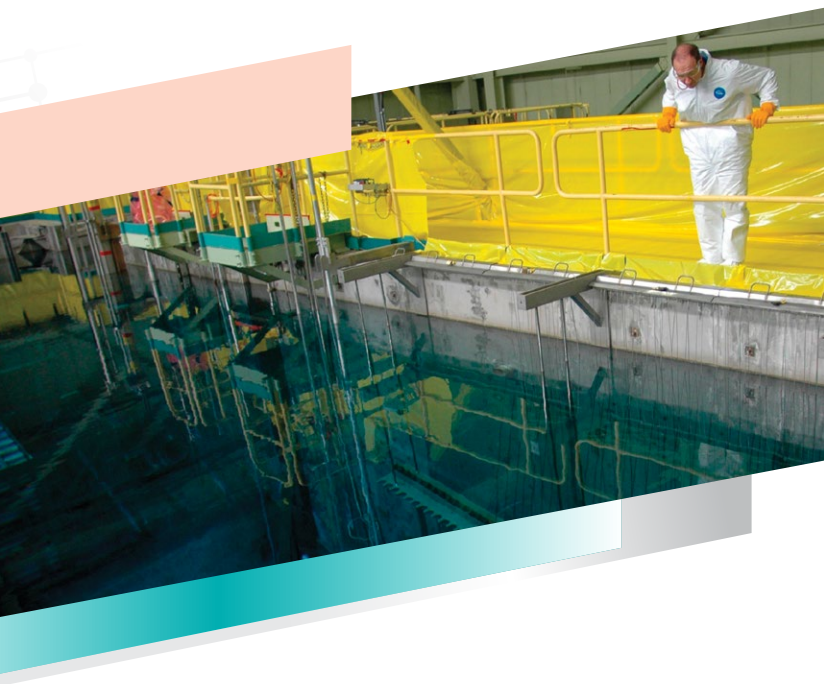


CANADA'S NUCLEAR FUTURE OFFERS TOMORROW'S BEST JOBS

MEL HYATT,
PRESIDENT, POWER WORKERS' UNION

Daily, we're bombarded with information about the complex, dangerous challenges our world is facing and how best to address them. One of the most pressing involves climate change and how we mitigate/adapt to it while sustaining and creating good jobs, growing the economy and ensuring a decent standard of living for all. This is why Canada's nuclear industry needs a plan that prepares our youth with the right education, skills and experience for the jobs it has to offer. The plan must also ensure a robust nuclear industry that can provide good-paying, long-term employment opportunities well into the future.

In the near term, the future looks bright for Canada's nuclear industry. A collaborative strategy for dealing with the education, skills and training gaps is in place. For the next ten to fifteen years, the multi-billion-dollar refurbishment of Ontario's reactors will create tens of thousands of person years of employment in the province's nuclear supply chain. Thousands of other high-paying jobs will be generated by Canadian research and development, exports of Canada's nuclear technology and services, and advances in life-saving nuclear medicine.



As well, Canadian scientists are looking at using nuclear technology for desalination to produce potable water. Nuclear energy can also be used to produce large quantities of hydrogen that could power clean fuel-cell cars and trucks. At the Canadian Nuclear Laboratories at Chalk River, significant investments are being made to licence small modular reactor (SMR) demonstration projects.

Yet, in less than five years, the 3000-megawatt Pickering Nuclear Station will be off-line. During the refurbishment program, there will be periods of time when a nuclear reactor is scheduled to be out of service at both the Bruce Power and Darlington Nuclear Stations. Ontario's last nuclear reactor refurbishment is scheduled to be complete during 2033. With over 30 SMR designs in play, their commercialization is expected to occur sometime in the 2030s. By that time, regulators and investors will better understand the operating, maintenance and manufacturing performance and costs of SMRs. All of these events will impact the sustainability of Ontario's nuclear supply chain. For instance, how will the deployment of SMRs in Ontario create jobs and benefit the province's nuclear manufacturers and suppliers?

Concurrently, there's the issue of climate change and how Ontario's responses will create new job, safety and technological requirements. Extreme weather events and longer-term climate impacts will require "strengthening" our bulk electricity system — generation facilities, interconnections with our neighbours and the province's grid and distribution networks that serve our homes and businesses. Additionally, new expertise, equipment and skills will be required to improve emergency response/recovery capabilities to ensure a reliable and resilient electricity system.

Should Ontario increase electrification of the economy – transportation, building and industrial sectors – the need for more clean generation will complicate the requirements. Ontario's current approach relies on filling the pending nuclear capacity shortfall with more import-dependent, non-renewable, natural gas generation; uncosted distributed energy resources e.g., wind, solar and battery storage; and a natural gas-dominated capacity market. Building a new Enhanced CANDU 6 reactor is an option not currently under consideration. Such an investment, as numerous analyses have shown, would help sustain and grow Ontario jobs and the province's nuclear supply chain while cost-effectively achieving major greenhouse gas emissions reductions.

Independent, international expert agencies conclude that climate change can't be tackled without nuclear energy, and our federal government says a National Energy Strategy needs nuclear to help **"realize a clean environment and a strong economy."** Canada can leverage nuclear energy to help anchor a low-carbon national grid, power zero-emission electric vehicles and public transit, support climate-vulnerable hydro generation in other provinces, export low-carbon electricity to fossil-dependent neighbours, and support oil and natural gas extraction in the west.

Collectively and collaboratively, our industry needs a broader overarching plan that sustains and provides future jobs while ensuring we have young women and men with the right education, skills, experience and equipment to fill them.

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