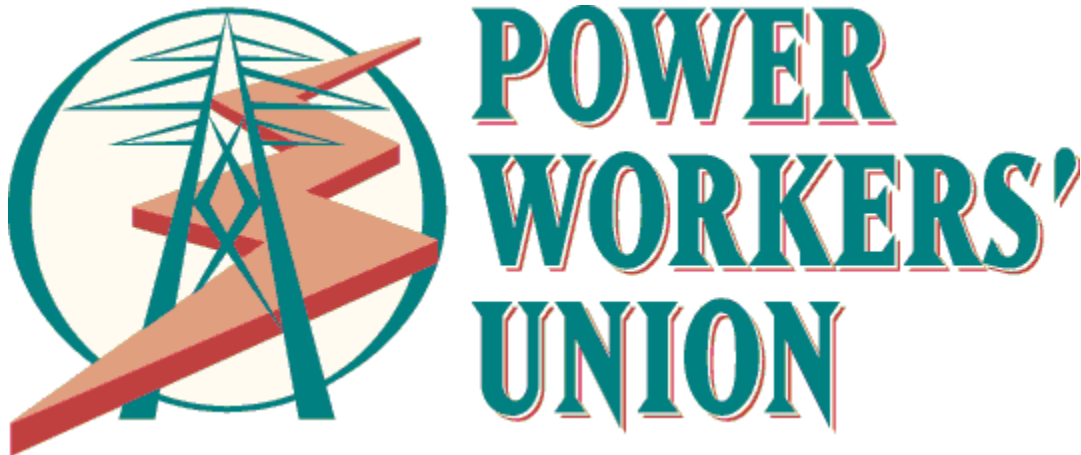


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Newsletter September 2013



PWU President
Don MacKinnon

This summer saw some particularly damaging storms and major outages. Many PWU members scrambled to get the power turned back on. More severe weather is now a fact of our lives. Combined with aging infrastructure, this new normal threatens overall system reliability. We should use the tenth anniversary of the 2003 Eastern Seaboard blackout in August to remind ourselves of what we have done to prevent such

events from recurring and to examine critically those government decisions that could put the electricity system and all that it supports at risk.

On behalf of our members and all Ontarians, the PWU has shared our fact-based concerns with decision-makers and opinion leaders in dozens of regulatory hearings and other forums and we will continue to do so. One significant opportunity to raise some important questions this fall is a consultation by the Ontario Ministry of Energy on the province's 2010 Long-Term Energy Plan (LTEP). This consultation differs from many others in that it seeks to look comprehensively at the electricity system. To guide the consultation, the Ministry issued a discussion paper entitled *Making Choices*, which can be found online at: <http://www.energy.gov.on.ca/en/ltep/making-choices/>.

While the PWU has some serious reservations about the way the consultation is being conducted—at public sessions, for example, participants are prevented from talking about possible trade-offs associated with particular generation options—we are in the process of preparing a comprehensive written submission.

That submission will argue that Ontario should adopt the following goals for our electricity system:

- A reliable, low-carbon, secure and reasonably-priced electricity supply;
- The maximization of Ontario's existing generation, transmission and distribution assets;
- The use of energy policy to spur manufacturing and expedite economic recovery and growth;

- Sound planning, rigorous analysis that takes accounts of all factors including costs, greenhouse gas emissions and the price of carbon, and transparent public consultations;
- Moving ahead with the planned Darlington and Bruce nuclear refurbishments and new nuclear units as quickly as possible;
- The conversion of the coal-fired generating stations at Nanticoke, Lambton and Thunder Bay to use carbon neutral biomass and natural gas for peak supply needs;
- A sober assessment of wind generation in terms of costs, impact on system reliability and increased greenhouse gas emissions related to natural gas generation backup;
- Realistic conservation expectations;
- The exploration of commercially-viable opportunities for hydroelectric unit expansions and additional hydroelectric generation; and
- Investment in a skilled workforce.

Many have speculated that with slower than forecasted growth in energy demand in Ontario, building out the full electricity generation capacity contemplated by the LTEP could result in higher than anticipated costs to ratepayers and unacceptably large surpluses of power generation at times. New and extremely important decisions on the future supply mix for Ontario may have to be contemplated. To assist with that debate, the PWU was a sponsor of a recently-published paper on the relative merits of nuclear and wind generation. Details on that paper can be found in a separate item below.

This fall promises to be a busy one on many fronts. Later in September is our annual Council of Chief Stewards meeting, about which I'll report in next month's newsletter. I look forward to the challenges and opportunities that loom ahead and working collaboratively with so many of you to advance the interests of all members and the people of Ontario.

Prince Wind Farm

Recently, the Ontario Labour Relations Board granted certification to the PWU to represent ten employees at the Brookfield Renewable Power Wind Operations located just outside of Sault Ste. Marie in Prince Township. The positions are highly-skilled and physically demanding. They include Maintenance Technicians, Planner/Parts Technician and an Administrative Assistant. The wind farm has a total capacity of 189 megawatts and is made up of 126 wind turbines.



Photo: Canadian Wind Energy Association

The new members will be part of Sector 2 Non-Nuclear Unit 7. The PWU also represents other regional generators in the same area owned by Brookfield including Mississagi Power, Lake Superior Power, and Great Lakes Power, which has both hydroelectric generation and transmission assets.

The PWU will begin bargaining for the first collective agreement with the company in October. Justin Rutherford has been elected as Principal Steward. We would like to welcome our new members to the PWU.

The Hiring Hall

A great PWU success story is the Hiring Hall, which was established in 1998 in partnership with Hydro One to ensure PWU members performed peak and intermittent supplementary work instead of using contractors. Hiring Hall members receive an attractive wage and benefit package, retirement program through the Power Sector Benefit Trust and the protection of a collective agreement governing working conditions. In turn, the employer can call on a skilled, mobile and flexible workforce that is available on short notice and provides a more attractive alternative than the use of contractors. At Hydro One, the presence of the Hiring Hall has curtailed the previous high levels of contracted-out trades work resulting in cost savings for Hydro One. Protections for regular full-time jobs and postings are built into the collective agreement language. Contrary to the concerns of some skeptics at the outset of the program, regular job numbers have actually risen during the 15-year operation of the Hiring Hall. In the intervening years, Bruce Power, the Electrical Safety Authority, Ontario Power Generation – Nuclear, Vertex CM and Inergi LP have signed on as employers using the Hiring Hall for a wide variety of needs.



Membership in the PWU Hiring Hall has grown to almost 3,000 members. Hiring Hall members not at work due to layoff can maintain their health benefits and know they will have the opportunity to return to work when it becomes available.

A stellar achievement of the Hiring Hall at Hydro One is its apprenticeship program. Through the Joint Apprenticeship Council, over 1,400 apprentices have been hired. After successful completion of

training, apprentices receive the provincial Certificate of Qualification. Although this credential can facilitate interprovincial mobility, we are delighted to report that the vast majority of apprentices remain with the PWU after obtaining their license and most of those have been selected for full-time regular jobs since becoming journeypersons. At a time when governments are finally calling for a renewed commitment to apprenticeship, the PWU and Hydro One can boast of a training program that is working very well for both the employees and the employer and is recognized across North America for its excellence.

New Must-Run Agreement for Thunder Bay GS



The PWU was very pleased to learn in July that the Ontario Energy Board had approved a reliability must-run agreement between Ontario Power Generation (OPG) and the Independent Electricity System Operator (IESO) for one of its coal-fired units at the Thunder Bay Generating Station. The one-year agreement covering 2013 means that the IESO can direct the facility to operate in specific ways (e.g., generating electricity during periods of high demand) when instructed to do so in order to ensure system reliability. In turn, OPG will receive a monthly payment of \$3.2 million or \$38.0 million over the term of the agreement. The PWU made a detailed submission in support of the OPG application before the OEB and the final decision is consistent with the key positions taken by the union.

If New Capacity is to be Curtailed, Will it be Wind or Nuclear?

To help inform the LTEP review discussed above, the Power Workers' Union and the Organization of Canadian Nuclear Industries commissioned Strategic Policy Economics Inc. (Strapolec) to assess the economic and greenhouse gas (GHG) emission



impacts associated with two supply mix options for illustrative purposes. One scenario – Retained Wind – assumes that planned new wind generation goes forward while investments in nuclear power generation are curtailed. Under this scenario, additional gas-fired generation is needed as a backstop to the intermittency of wind generation. Wind generation produces electricity approximately 30 percent of the time. The other scenario – Retained Nuclear – assumes that the planned refurbishment of existing nuclear reactors and the building of new reactors would proceed while the proposed development of new wind generation would not.

The Strapolec study – *Ontario Electricity Options Comparison* – concludes that the Retained Nuclear scenario would offer tremendous advantages over the Retained Wind scenario. Retaining the currently-planned nuclear capacity would produce \$56 billion in direct benefits to Ontario's economy, \$27 billion in savings to ratepayers and \$29 billion in direct investment in Ontario. The net incremental benefit of this scenario, compared to the Wind scenario, would be \$60 billion. It would generate \$9 billion more in direct employment income benefits than the Wind scenario, including the creation of more than 100,000 person years of

employment in high-value Ontario jobs, many in the advanced manufacturing sector. Additionally, GHG emissions would be reduced by more than 108 million tonnes, 80 percent less emissions than the Wind scenario.

The study did not consider the impact of carbon pricing which would further tip the scales in favour of nuclear generation.

The study relies on publicly-available data from the Ontario Power Authority, the Independent Electricity System Operator and the Ontario Energy Board as well as economic impact assessments for wind generation from ClearSky Advisors and for nuclear generation from Canadian Manufacturers & Exporters. The data and assumptions used were validated and consistently applied in modelling the two scenarios to 2035, the planning horizon for the LTEP.

Ontarians should have as much accurate information as possible to make these important decisions about our energy future. The study confirms that investments in nuclear power generation will lead to significantly lower electricity costs, greater direct investment benefits in Ontario and much lower GHG emissions.

In recent years, Ontario has had one of the lowest carbon electricity system footprints in the world, thanks to our province's hydroelectric and nuclear electricity generation. For over 50 years, CANDU reactors have produced GHG emission-free electricity. Each year, Canada's nuclear reactors help avoid about 90 million tonnes of CO₂ emissions, about the same amount as taking 81 percent of Canada's cars off the road.

Ontario already hosts much of Canada's \$6 billion-a-year nuclear industry, its 160 supply chain companies and its 60,000 direct and indirect high-value jobs.

Investing in our nuclear assets reduces Ontario's growing reliance on imported US shale gas, which means better energy security. It also means that in the future Ontario can continue to export low-carbon electricity to our fossil-fuel dependent neighbours and can power Made in Ontario zero-emission electric vehicles.

Ontario's future economic prosperity will be contingent upon ensuring that our businesses and industries continue to have affordable, reliable, low-carbon electricity.

The Strapolec study should help decision-makers make the right choices for Ontario's energy future. It can be found at: http://www.pwu.ca//issues/Ontario_Electricity_Options_Comparison_Final_070813.pdf.

Electric Vehicles Deliver Economic and Environmental Benefit

In 2008, the National Roundtable on the Environment and the Economy found that for Canada to meet its 2020 and 2050 greenhouse gas (GHG) emission targets to mitigate climate change, the market share of passenger plug-in hybrid vehicles would have to rise to 13 percent by 2020 and 83 percent by 2040. Ontario's Climate Change Plan also recognizes the environmental and economic benefits of moving to electric vehicles (EVs).



More can yet be achieved with a strategy that links Made-in-Ontario EVs to our province's low-carbon nuclear, hydroelectric and biomass-generated electricity resources.

According to Ontario's Environment Commissioner, GHG emissions from the transportation sector have risen since 1990. Transportation is now the province's largest source of GHG emissions as well as a major source of particulate matter and smog precursors.

Base-load nuclear reactors are particularly well suited to power EVs because the safe GHG emission-free, reliable, 24/7 power they generate aligns well with the overnight, off-peak charging of EVs. EVs powered by electricity generated from hydroelectric and nuclear generating stations can be operated with virtually no GHG emissions. Adding Ontario's vast renewable, carbon-neutral, farm- and forest-sourced biomass fuels to Ontario's supply mix would provide additional low-carbon electricity, ideal for peak production needs.

Here's what a recent Pollution Probe study found:

The study involved data-logging of three conventional gasoline-powered light-duty vehicles and three electric vehicle alternatives

during the course of normal fleet service for one year, and then conducting a comprehensive life cycle analysis of the cost of ownership based on the data gathered. In each case, the electric vehicle was determined to be the lower-cost option, with operational cost savings offsetting incremental price premiums to deliver a payback in just a few years. Moreover, even when emissions from the generation of electricity (upstream emissions) were considered, electric vehicles produced 21 times less carbon dioxide equivalent emissions per year than their gasoline-powered alternatives.

You can read the full study at: <http://www.pwu.ca//issues/Project-EVAN-Final-Report-June-2013.pdf>.

Ontario world-leading auto-makers are well positioned to build the next generation of EVs. This sector supports over 400,000 direct and indirect jobs, 350 parts manufacturers, and research at over 30 publicly-assisted research facilities. Toyota recently chose its Woodstock plant to manufacture its RAV4 EV.

Ontario already hosts much of Canada's \$6 billion-a-year nuclear industry, its 160 supply chain companies and its 60,000 direct and indirect high value jobs. We have a clean electricity-generating system, the largest production of automobiles of any province or state in North America and the potential to convert our existing coal generating stations to use carbon-neutral biomass for electricity generation. The latter alone would create about 3,500 jobs and contribute about \$600 million annually to Ontario's GDP.

Buyers of EVs currently benefit from provincial incentives but more importantly in the long-term, EVs are much cheaper to operate than gasoline-powered vehicles and they are particularly well-suited to urban travel requirements.

Connecting EVs to Ontario's affordable, reliable, low-GHG emission electricity provides a practical strategy for action on climate change while underpinning a sound economy.

Team Ontario Wins World Fastball Championship



Left to Right: George Ryder,
Cole Bolton, Mike Bolton, Mike
Crawford.

The PWU has long been a supporter of minor sports across Ontario and this year stepped up by sponsoring eighteen-year-old Third Baseman/Pitcher Cole Bolton on Ontario's Gold Medal winning Under 21 Men's Fastball Team. Cole's father Mike works at the Campbellford Service Center in the OPG Central Hydro Plant Group. Surprisingly, two of the five team coaches were PWU members: George Ryder, a Mechanical Technician at Nanticoke Generating Station, and Mike Crawford, who works in Hydro One Forestry based in Huntsville.

The U21 International Fastball Championship is played every four years and this year was held in Saskatoon. Team Ontario captured Gold with a convincing 9–3 win over New Zealand in the final. This victory capped off a perfect 8–0 week for the Ontarians.

Power Worker Wins Gold

R.J. Ross of Emergency and Protective Services (Fire) at Bruce Power participated in the World Police and Fire Games in Belfast in August and won gold in the triathlon. He was co-sponsored by the PWU.

The World Police and Fire Games is a biennial event for serving and retired police, fire, prison and border security officers. WPFG is the third largest international multi-sport event in the world and the largest ever sporting event to take place in Northern Ireland. In 2013, there were 56 sports held at 41 venues across Northern Ireland with competitors from 67 countries taking part.

