

Green wave of jobs



Peter Redman/National Post

With a surge of retirements looming, technical jobs in the green sector are ready to grow dramatically.

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AlexandraLopez-Pacheco, National Post · Sept. 10, 2009 | Last Updated: Sept. 10, 2009 2:01 PM ET

These days, the electricity sector is buzzing with vibrant career opportunities. First of all, there's a huge demand for people to work in almost every aspect of generating, transmitting and distributing electricity.

In fact, with some 40% of the sector's labour force due to retire over the next 10 years, 17,000 technicians alone will need to be hired by 2015, according to the Electricity Sector Council (ESC). And that's just technicians.

"We have tremendous change in technology and infrastructure renewal," says Catherine Cottingham, executive director and CEO of the ESC. "The equivalent of about a third of the current infrastructure needs to be replaced or renewed by 2020."

That means the sector has a wide range of lucrative and exciting careers to offer. Because of the growing commitment to sustainability and related new technologies, many of these careers will either be completely new "green" jobs or traditional occupations enriched with the benefits and challenges of being part of the greening of the country's electricity sector.

"Renewable energy jobs, which are typically thought of as green jobs, are increasing at a rate of 25% to 30% annually," Ms. Cottingham says.

"But in total volume of positions, that number is still dwarfed by jobs in traditional electricity production. I think people need to think of green as a value proposition."

In some ways, most jobs in the sector, she says, will be "green" because sustainability and efficiency are being integrated throughout the country's electricity systems.

In Ontario, the opportunities for green careers in renewable energy received a powerful boost when the provincial government announced its plans last May to start re-investing in its electricity grid by leveraging the new Green Energy Act -- projecting a \$5-billion investment between 2010 and 2012 to support green energy and stimulate a culture of conservation.

Colleges and universities across the country are developing new curricula to support the shift in focus to "green collar jobs." But many young people such as Joshua Wong, an engineer who joined Toronto Hydro-Electric System after graduating from university in 2006, however, are already living the green career reality.

As the leader of a team of experts at Toronto Hydro focused on "smart grids," he does not just have a green career -- he is helping lead the way to a green future. Smart grid technology will likely revolutionize electricity systems. Using digital intelligence and two-way communication, smart grids empower utilities in energy conservation and efficiency as well as reliability. In the case of an outage, for example, smart grids can actually detect and correct the problem themselves.

“Our team took part in shaping the smart grid for Ontario and Canada,” says Mr. Wong, who as a student worked on the University of Toronto’s Blue Sky Solar Racing team, designing and racing a solar car, and did a 16-month internship at Hydrogenics Corporation, where he worked on hydrogen fuel cells for clean energy generation.

“When I first joined [Toronto Hydro] we took part in an initial exploratory team to define “smart grid” with both Industry Canada and Natural Resources Canada,” Mr. Wong says. “We wrote the first Toronto Hydro roadmap for the smart grid in 2007,.”

One year later, Mr. Wong represented Toronto Hydro in the working group of the groundbreaking Ontario Smart Grid Forum, convened by the Independent Electricity System Operator (IESO). The Forum produced a report last February that fed into Ontario’s new Green Energy and Green Economy Act, Mr. Wong says.

Today, he and his team at Toronto Hydro are busy working 10 steps ahead in forging the future through work and research that includes deepening the reach of digital intelligence even further into the smart grid.

But Mr. Wong is just one of many young Canadians who are inspired by the role they can play through green careers. This year, almost 500 young people applied for 12 positions working with JTM Property Management in its lighting retrofit and energy conservation work for Social Housing Services Corporation (SHSC). The jobs are part of a program sponsored by Toronto Hydro Corporation that includes “green collar” work training.

“The young people hired learn such things as how to do basic electricity, looking at building envelope issues to reduce energy use,” says Frank Melo, JTM’s president. “We’re trying to build their capacity around sustainability and knowing what it means and the various simple things that can be done that have a significant impact.”