

Durham Region is not just keeping pace with the global energy transition. They're leading it

By Jennifer Foden

Durham may be known as a leader in the agri-food and automotive sectors, but they're also trailblazers in the clean energy space too. So much so, they're actually considered the Clean Energy Capital of Canada. What does that mean exactly? According to Sandra Austin, the Region's commissioner of community growth and economic development, it's the size of Durham's clean energy ecosystem—companies, jobs, educational institutions, et cetera—relative to the area's population.

Firstly, Durham produces about 30 per cent of the entire province's electricity, and, according to Austin, this is mostly low-carbon nuclear energy. This is largely thanks to Ontario Power Generation, Ontario's largest electricity generator, which has two nuclear plants in Durham.

In addition to OPG, the Region is home to 250 clean energy companies, including the Canadian headquarters of many global businesses like Worley and ABB, as well as start-ups like NovoSolTech, which provides smart solar thermal windows, and Ekstera, which has developed technology capable of generating clean and affordable electricity from a range of heat sources.

Brendan MacDonald, CEO, president and co-founder of Ekstera says Durham Region has been helpful since the very beginning. "I found that the support from Durham was remarkable and the community was very keen to foster new businesses," he says. "Durham Region has provided incredible supports for Ekstera including help with making connections, publicity and experts."

In addition to industry, there are also cutting-edge institutions in the area like Ontario Tech University and Durham College, which help support research and training the future leaders of tomorrow. "They're supporting innovation in hydrogen, in electricity microgrids, in geothermal energy, and, of course, the small modular reactors (SMRs) that we're hearing so much about," says Austin. She also adds that the Region has increased electric vehicle infrastructure and use of geothermal heating and that they're taking the necessary steps in the development of district energy systems around some of the major transit station areas that have been identified across Durham.

And beyond environmental reasons, Austin says that living and working in the Clean Energy Capital of Canada benefits local residents and businesses in many ways. It helps position Durham Region as a place for investment, which creates jobs—over 10,000 people work in the clean energy industry here—stimulates local supply chains and positions the area as a "place to be," which increases property values and brings more diverse businesses to the community.

And for any naysayers who say climate change is a global issue and is beyond the scope of one community of less than a million people? Austin says that local government is in a really good position to make profound change. “We are closest to community members so we can create opportunities for really meaningful community engagement on climate solutions,” she says. She points to local and regional food systems, alternative modes of travel like public transportation—which is a Regional responsibility, after all—and active mobility like walking and cycling. They’re also working closely with Indigenous communities. “We recently signed a bilateral agreement with the Mississaugas of Scugog Island First Nation, and our focused areas are around economic development and clean energy, but also environmental protection and restoration.”

Austin adds that more than half of our emissions occur at the local level, whether through gas consumption for transportation or natural gas for heating buildings. “It’s through action at this local level that we can demonstrate that innovation,” she says. “We can test solutions that can be scaled up to larger communities and businesses across the province and the country at large.”