

ALTERNATIVE ENERGY AND ENVIRONMENTAL TECHNOLOGIES IN NORTHERN ONTARIO

Northern Ontario is a North American leader in the advancement and utilization of alternative renewable energy and environmental technologies.

Large scale alternative energy projects are both helping to diversify the economic base and enable the establishment of other industries seeking a source of clean and reliable energy. Likewise recognition of the need for the development and commercialization of protocols to mitigate the effects of industry while providing a sustainable environment for generations to come has brought about the forging of solid partnerships between industry, institutions and government.

Several private and publicly-owned projects including those derived from hydro-electric and biomass generation currently produce in excess of 1,300 megawatts of clean renewable energy.

And there is a lot more....

Wind

Northern Ontario has four major wind energy farms totaling with a combined 273 towers generating 615.72 MW. These wind energy farms produce enough clean, renewable energy to power over 135,000 homes on an annual basis.



Current mapping estimates of the region's wind resources indicate the potential for further development over the next ten years.

Bio-Fuels

Several initiatives are currently underway which involve the utilization of various forms of feedstock from both virgin and waste sources as a means to create valuable fuels for the region's industrial and transportation energy needs. One such unique program entails the growing of "bio-crops" such as canola and corn on former industrial lands utilizing a mix of pathogen-free, composted municipal and forest products waste. Northern Ontario's major industries are investing in cogeneration power facilities to help offset their energy requirements. Such innovative approaches being developed in the region by private-public consortia will go a long way to helping solve future global energy needs.

Solar



Northern Ontario has one of the larger solar energy farms in Canada (\$400M – 60 MW capacity) in Sault Ste. Marie. In addition, Heliene has set-up a solar manufacturing facility shipping product globally. In support of solar activity, Northern Ontario has an extensive supply chain that caters to the needs and demands of the end user.

Energy Storage



Energy storage has been prevalent in Northern Ontario which its' intended purpose is to efficiently store energy and release it to Ontario's grid during times of peak electricity use or during an energy shortage.

Environmental Initiatives

Several Northern Ontario agencies, institutions and related initiatives are also involved in the research, collaboration and promotion for the advancement of environment science. These include such facilities and projects as:

- Northern Ontario Centre for Advanced Technology (NORCAT)
- Mines and Research Rehabilitation Centre of Ontario (MIRARCO)
- Vale Living With Lakes Centre

And Much More!

Several Northern Ontario communities and companies are engaged in initiatives incorporating the capture, combining and processing of various forms of waste including methane recovery, pyrolysis, algae to oil, biomass, off-peak hydrogen and geothermal extraction.

And this is just the beginning!