



# CANADA'S CLEAN POWER GENERATION CREATING A CLEANPOWER SECTOR

Canada, as part of an ambitious climate agenda has committed to increasing its GHG-free power generation to 90% by 2030.

Canada's long coastlines and vast land mass give it some of the best wind and solar resources in the world. This is supported by a large domestic and regional market; Canada is the 6<sup>th</sup> largest consumer of electricity in the world. The renewable energy industry is growing within Canada. Annual solar capacity is forecasted to triple by 2025. Canada has the world's ninth largest wind generating fleet ending 2017 with more than 12000 MW of installed capacity.

The Government of Canada has adopted an innovation agenda to create a more cost-effective, low-carbon energy system. It recognizes how clean energy resources can contribute to building the energy system of the future at the grid, distribution and customer levels, including the electrification of transport and helping remote communities reduce the use of diesel.

**81% Electricity generated from non-GHG emitting sources in Canada**



## MORGAN SOLAR > [www.morgansolar.com](http://www.morgansolar.com)

**Morgan Solar** develops highly efficient, low-cost solar power technologies that are competitive with traditional sources of energy generation. Morgan Solar's core products are designed to capture and concentrate sunlight with thin, highly durable, versatile and very cost-effective structures. Morgan solar in partnership with Dutch company Wellsun has developed a new solar module for their Lumiduct™ system. Lumiduct™ is a one-of-a-kind sun control system that can be integrated into a building's glass façade, creating functional, aesthetic and energy neutral buildings.

Morgan Solar also creates a dual-axis tracking system that follows both the sun's daily east-west path and seasonal changes in its elevation, increasing yields by 25% to 40%. Along with technology, Morgan Solar provides the training required for customers for site planning and site design work, as well as engineering support for deployment and commissioning.



## EXAMPLES OF INNOVATIVE COMPANIES INCLUDE:



### **IDÉNERGIE INC.** > [www.idenergie.ca/en](http://www.idenergie.ca/en)

**Idénergie** develops and sells innovative renewable energy solutions; a new generation of solar converters, a one-of-a-kind river turbine as well as hybrid renewal energy systems adapted to the needs of the customers. Idénergie has developed its solar converter, based on its very own power electronics platform.

Deployed in international markets, their solar systems allow users to charge batteries from 16-solar panel strings with string voltages of up to 600 V. Along with their solar management system, Idénergie can provide end to end renewable energy solutions to clients, offering cost effective, clean energy in any environment.



### **TUGLIQ ENERGY CO.** > [www.tugliq.com](http://www.tugliq.com)

**TUGLIQ** is a specialist Independent Power Producer (IPP) focused on remote and complex energy diversification for off-grid and/or hybrid applications with solutions tailored to the mining industry and/or islanded grids.

Tugliq Energy has deployed their system in Canada's north, helping mines reduce their costs and greenhouse gas emissions by reducing the use of diesel. TUGLIQ aims to provide clean energy solutions to remote communities around the world.



### **HYDROGENICS** > [www.hydrogenics.com](http://www.hydrogenics.com)

**Hydrogenics** is a world leader in hydrogen technology with over 70 years of experience. Their solutions include hydrogen generators for industrial processes and fueling stations, hydrogen fuel cells for electric vehicles and commercial fleets, and "Power-to-Gas" - the most innovative way to store and transport energy.

Hydrogenics won the world's first commercial contract for hydrogen fuel cell trains, to supply Alstom with hydrogen fuel cell systems for Regional Commuter Trains in Europe. With innovative clean energy solutions, Hydrogenics helps customers shift power to a cleaner energy future, having delivered more than 2000 fuel cell and 500 electrolysis projects in 100+ countries.

## MORE FIRMS OFFERING CLEAN POWER SOLUTIONS:

- > Boralex
- > Borealis Geopower
- > Celestica
- > Canadian Solar
- > Ensyn, Heliene Inc.
- > Innergex Renewable Energy
- > Northland Power
- > New Energy Corporation
- > Quadrogen
- > Questor Technology
- > Quantum Wind Power



ENERGY  
**INNOVATION**  
SNAPSHOT

For more information about Canadian innovative energy companies and projects please visit  
> [energyinnovationsnapshot.ca](http://energyinnovationsnapshot.ca)

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