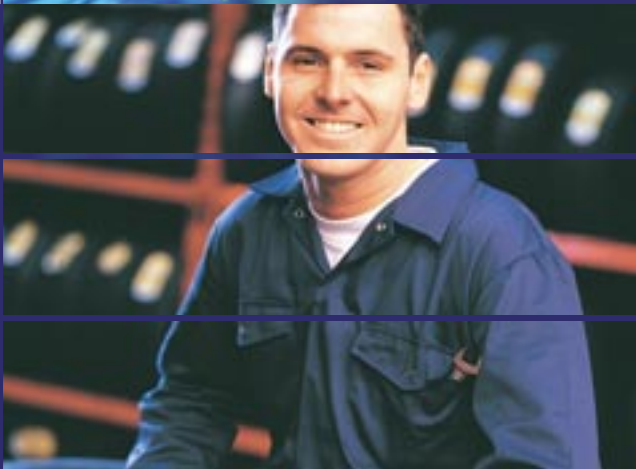




## Climate Change **Solutions**



## TRANSPORTATION TECHNOLOGIES AND ALTERNATIVE FUELS



**Canada is home to a dynamic and world-class environment industry. A key component of this industry is a well-established group of resourceful companies that offer climate change solutions – “services and technologies that enhance competitiveness, increase productivity and reduce environmental impacts, while at the same time prevent, reduce, mitigate or sequester greenhouse gas (GHG) emissions”. In essence, Canadian ingenuity represents additional value to customers.**

- Advanced Power Systems
- Advanced Materials
- Digitalized Platforms
- Progressive Internal Combustion Technologies
- Alternative Vehicle Technologies (e.g. innovative power trains, aerodynamic body designs and low-friction tires)
- Advanced Traffic Management Systems
- Alternative Fuels (Natural Gas, Biofuel and Hydrogen)

With a strong domestic market and more than 25% of Canada’s greenhouse gas emissions originating from the transportation sector, Canadian companies have developed solid expertise and a diverse range of proven technological solutions to enhance vehicle performance, create lower emission fuels, improve mass transit efficiencies and design and manage traffic systems more effectively. The result is a world-class transportation and alternative fuels sector that is now providing sustainable solutions around the world.

Vehicle performance is being optimized by creative Canadian companies that are redesigning vehicle components, such as power trains and tires to reduce friction, creating light-weight

materials and more aerodynamic body designs and advancing internal combustion technologies to burn fuel more efficiently and cleaner. Canadian expertise and innovation is also pushing the envelope in the development of new transportation power systems including batteries, flywheels, hybrids and fuel cell products and systems including stationary, portable and transportation applications.

The integration and application of Canadian information technology and expertise in digitalized platforms is also increasing the performance of vehicles as computers enhance fuel consumption and optimize routing, while advanced traffic management and control systems improve traffic flow, minimize travel distances and reduce idling and congestion.

On the fuel side, Canadian know-how is turning a vast resource – biomass – into fuel products (bio-fuel, bio-diesel) and additives (ethanol) that result in a cleaner burn and significant emission reductions. These products combined with leading Canadian technologies in the areas of refueling equipment, natural gas conversion (CNG, LNG and LPG), and hydrogen are making Canada a world-class leader in the area of alternative fuels.

**For more information:**

**WWW.  
cleanenergy.gc.ca**