

Built by the Canadian branch of French-owned EDF Energies Nouvelles, Canada's largest solar photovoltaic installation is located in Arnprior, Ontario. The 200-acre property has 312,000 solar panels that now feed 23.4 MW of energy into the provincial grid—enough to power 7,000 homes.



projects. In 2009, **AMEC Earth and Environmental Inc.**, a division of London-based engineering and project management firm **AMEC plc**, established offices in Calgary and Edmonton. Also in 2009, in a nod to Canadian expertise, Los Angeles-based design and management giant **AECOM** acquired environmental consulting firm **Gartner Lee Ltd.** of Markham, Ontario.

Carbon-capture Technologies

Canada stands at the leading edge of carbon capture and storage (CCS) and clean-coal technology. Britain's **BP plc** is one of 18 industry participants in **ICO₂N**—the Integrated CO₂ Network, a proposed Canadian system for capturing, transporting, distributing and storing carbon dioxide.

In 2009, the Government of Alberta announced support for four CCS projects through its \$2-billion CCS Fund. With \$780 million from the Alberta and federal governments, France's **ALSTOM**, Calgary-based **TransAlta Corp.** and Edmonton's **Capital Power Corp.** will build a coal-fired electricity plant that captures carbon dioxide and stores it underground. This project will be the first to capture one million tonnes of CO₂ annually.

The world also looks to Canadian companies for air-pollution and control technologies. In 2008, **Shell Global Solutions International** acquired

Montréal-based **Cansolv Technologies Inc.**, whose "scrubbing" systems capture industrial carbon dioxide and sulphur dioxide.

Green Materials and Related Manufacturing

Canada is equally innovative in green materials and manufacturing. The first facility of its kind in North America, **GreenCentre Canada**, is a collaboration between foreign investors, Canadian companies and local researchers, to commercialize cleaner and less energy-intensive chemicals and manufacturing processes in buildings. Its global partners include **Veolia Water Solutions & Technologies**, and Pittsburgh's **Pressure Chemical Co.**

KEY VALUE-CHAIN STRENGTHS

- **Research and development:** Carbon capture and storage, clean-coal technology, green chemicals, manufacturing
- **Product development:** Water and wastewater membrane technologies, disinfection technologies, biological treatment and nutrient recovery, waste-to-energy technologies, green buildings, air "scrubbing" systems, transportation emissions control equipment
- **Services:** Waste management, water and wastewater treatment, environmental consulting, municipal infrastructure

KEY SEGMENT STRENGTHS

- Waste management and remediation
- Water and wastewater technologies
- Environmental consulting services
- Air-pollution and control technologies
- Analytical monitoring and testing services