

Canadian companies will manufacture equipment such as drilling rigs and field processing units at home or abroad to suit local requirements. They also have a worldwide network of agents, distributors and service companies to ensure that parts and services will be readily available to overseas customers.

Canadian companies are world leaders at developing specialized equipment related to the extraction of sour gas, heavy oil and oil sands deposits, three key resources that are abundant in Canada. Specialized equipment for extracting oil from tar sands and gathering and treating sour gas is currently being exported to India, the People's Republic of China, Russia, Kazakhstan and Azerbaijan.

Canadian expertise also extends into the areas of primary and secondary recovery of conventional oil. Canada has a well-earned reputation in the field of advanced fracturing technology, as well as directional and horizontal drilling for the recovery of oil and gas from difficult formations and depleted wells. Top motor drives, software products, computer-controlled automatic coring devices and automated pipe-handling systems are all areas in which Canadian firms have made significant advances. Much of this technology and many new techniques have been developed in co-operation with overseas customers.

ELECTRICAL POWER

Canadians have developed a wealth of knowledge and experience in building systems that generate, transmit and distribute power. They have designed, built and operated some of the world's largest and most complex electrical projects, such as the Churchill Falls, the James Bay and Niagara Falls projects in Canada. Canadian consulting engineers, government utilities, private manufacturers and construction firms are working in more than 70 countries around the world. Canadians are sought-after partners because they not only are experienced and have the latest equipment and technology, but also are willing to transfer that technology.

Canadian utilities specialize in generation technologies for hydro, nuclear and conventional thermal power and are regarded as international leaders in AC and DC transmission lines and long-distance and high-voltage transmission. Canada is a vast country, and its utilities have had to develop innovative transmission systems that operate efficiently and reliably in extreme heat, cold and high humidity. Canadian firms are innovators in the development of technology and systems that save energy, improve efficiency and control emissions.

**CANADA, THE
WORLD'S LARGEST
PRODUCER OF
HYDROELECTRIC
POWER, IS ALSO
THE FIFTH-LARGEST
PRODUCER OF
ELECTRICITY FROM
ALL SOURCES.**

Canadian power companies are competitive in all areas related to generation, transmission and distribution equipment, and professional services. Canada specializes in the design and construction of highly engineered, high-technology specialty equipment, including custom-designed hydro turbine generators, power boilers, gas generators and nuclear reactors.

Atomic Energy of Canada Limited (AECL) offers a unique technology in the CANDU nuclear power system. The major features that distinguish CANDU from its international competitors include:

- USE OF NATURAL URANIUM FUEL AS OPPOSED TO ENRICHED URANIUM;
- USE OF PRESSURE TUBES RATHER THAN A LARGE PRESSURE VESSEL TO HOLD THE FUEL;
- USE OF HEAVY WATER RATHER THAN ORDINARY WATER AS A COOLANT AND MODERATOR; AND
- ON-LINE REFUELLING AS OPPOSED TO SHUTTING DOWN THE UNIT.

The Canadian power industry exports about \$1 billion in energy exports to the United States and \$2 billion in goods and services annually to customers in countries such as South Korea, China, Indonesia, Israel, Egypt and Venezuela. Canada's leading exports include:

- EQUIPMENT FOR HYDRO, THERMAL AND NUCLEAR GENERATING STATIONS
- POWER TRANSMISSION AND DISTRIBUTION EQUIPMENT
- ELECTRICAL WIRE AND CABLE PRODUCTS
- POWER AND DISTRIBUTION TRANSFORMERS
- CONTROL AND PROTECTION EQUIPMENT
- POWER-CONVERSION EQUIPMENT
- CO-GENERATION, MINI HYDRO STATIONS AND REMOTE LOCATION POWER GENERATION
- CONVENTIONAL AND ADVANCED TECHNOLOGY BATTERIES
- FUEL CELLS

