

# Power Generation~ fast facts you need to know



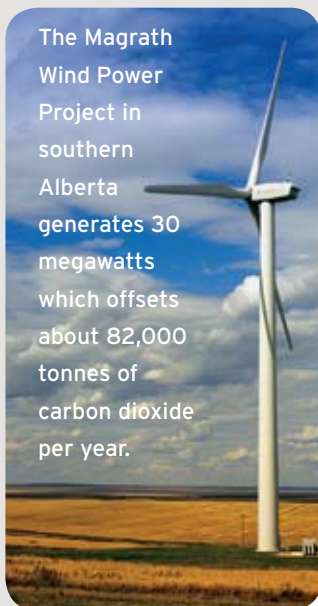
Shell's Energy Efficiency and Greenhouse Gas Advisor Roy Kanten in front of the Caroline Low Pressure Steam Unit.

**SHELL'S CAROLINE GAS PLANT**, located 170 km northwest of Calgary, Alberta, has begun using an innovative method to generate electricity that uses the waste steam created from processing sour natural gas. The newly commissioned Caroline Low Pressure Steam Unit not only improves energy efficiency but also lowers the CO<sub>2</sub> emissions "footprint" of the plant.

The Caroline plant generates approximately 10 to 11 MW of energy each day from waste steam – enough to power just over half the Shell Caroline Gas Plant. □

## Ethanol Expansion

**SUNCOR ENERGY IS MOVING AHEAD WITH A \$120-MILLION EXPANSION OF ITS ST. CLAIR ETHANOL PLANT IN ONTARIO - THE LARGEST FACILITY OF ITS TYPE IN CANADA. THE MONEY IS EXPECTED TO DOUBLE PRODUCTION TO 400 MILLION LITRES A YEAR AT THE SITE. THIS IS PART OF SUNCOR'S \$750-MILLION RENEWABLE ENERGY INITIATIVES, WHICH ALSO INCLUDE WIND FARMS IN ALBERTA, SASKATCHEWAN AND ONTARIO. CONSTRUCTION IS EXPECTED TO FINISH IN LATE 2009.** □



The Magrath Wind Power Project in southern Alberta generates 30 megawatts which offsets about 82,000 tonnes of carbon dioxide per year.

## HIGHWAY ELECTRIC

The spark to develop several promising mineral and metal deposits in northwest British Columbia may finally have been ignited. In late September, B.C. Premier Gordon Campbell announced the province will immediately start work on the environmental process and First Nations consultation needed to proceed with the Northwest Transmission Line along Highway 37. The project could potentially attract \$15 billion in capital investments and create almost 11,000 jobs, estimates the Mining Association of B.C. The line will extend from Terrace to Meziadin Junction and north to Bob Quinn Lake. Currently, the province's electricity grid ends at Meziadin Junction to the north and Stewart to the west. □

## The bio-methane alternative

One of the country's largest natural gas utilities is taking a stab at bio-methane, created during the conversion of organic waste from such places as farms, landfills and sewage treatment plants.

British Columbia's Terasen Gas says it wants to use the alternative energy source to heat and power homes and businesses.

"We are issuing a call to municipalities, waste management companies, farms and other businesses to bring forward opportunities whereby new facilities could be built or existing ones upgraded to allow the production of bio-methane and its conversion into a clean and renewable energy source," says Doug Stout, company vice-president, marketing and business development. "This initiative supports the B.C. Energy Plan's objective to increase the province's production of clean and renewable energy, while reducing emissions from waste methane, which is 21 times more powerful in warming the atmosphere than CO<sub>2</sub>." Details are available at [www.terasengas.com/biogas](http://www.terasengas.com/biogas). □

## Prairie Power



**T**ERRA GRAIN FUELS has started ethanol production at its facility in Belle Plaine, Saskatchewan. The plant can produce up to 150 million litres of ethanol annually.

"This \$150-million facility will also boost the local and regional economy, reduce greenhouse gases, and help moderate prices at the pump for drivers," says Gordon Quaiattini, president of the Canadian Renewable Fuels Association.

The federal government recently passed a landmark biofuels bill that will require 5 per cent renewable content in gasoline by 2010, and 2 per cent renewable content in diesel fuel by no later than 2012. □