



SASKATCHEWAN
CHAMBER OF COMMERCE
energy tours

Exploring Estevan's Energy – 1 Day Tour

Date: June 11th

- 7:00am Meet at Southland Mall
- 7:15am Depart Regina
- 8:15am Pit Stop – McDonald's Weyburn
- 8:30am Depart Weyburn
- 9:30am **Arrive Boundary Dam Power Station (2 hours)**
- 9:45am Safety orientation, PPE and presentation
- 10:15am Tour of Boundary Dam Unit #3
- 10:35am Tour of Carbon Capture Storage
- 11:15pm Discard PPE & Pick up belongings

Boundary Dam:

"The Boundary Dam coal-fired stations were commissioned in 1959 with Unit #1 having 62 net MW and Unit #2 having 61 net MW. The next two units have a combined generating capacity of 278 MW and were added in 1970. The next unit with a generating capacity of 139 MW was added in 1973 and the final unit with a generating capacity of 284 MW was added in 1978. A long-term project to install electrostatic precipitators on all units to reduce air particulate emissions was completed in July 2003. Due to federal regulations related to CO2 emissions standards, Units 1 and 2 were retired in 2013 and 2014 respectively.

In a thermal power station, fuel (coal or natural gas) is burned in a boiler to convert water to steam. The high-pressure steam is directed into a turbine, which turns the turbine shaft. This shaft, connected to an electrical generator, produces electricity as it



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turns. A condenser converts the spent steam from the turbine back to water that is reused in the boiler. The condenser cooling water comes from the reservoir and is returned for reuse."

Carbon Capture Storage:

"Fossil fuels continue to play a significant role in the global energy portfolio. Proving carbon capture and storage (CCS) technology is critical to securing the long-term viability of sustainable coal production in Saskatchewan and around the world. In the fall of 2014, Boundary Dam Power Station became the first power station in the world to successfully use CCS technology. Unit #3 at Boundary Dam produces 115 MW of power – enough to power about 100,000 Saskatchewan homes – and can reduce the SO2 emissions from the coal process by up to 100% and the CO2 by up to 90%.

Coal is still the most widely used power source in the world, making up about 40 per cent of the world's electricity. Saskatchewan has lots of coal. It's cheap to use and coal plants are very reliable. However, burning coal also creates harmful CO2 emissions."

11:30am Depart for Lunch

11:45am **Lunch Session with Estevan Chamber of Commerce (1.25 hours)**
Western Star All Suites Hotel, 303 Kensington Ave.

1:00pm Depart for Westmoreland Coal Mine

1:15pm **Tour Westmoreland Coal Mine (1.5 hours)**

Westmoreland Coal Mine:

"The Estevan Mine covers an area of 20,331 Ha. and is located between Estevan and the Town of Bienfait. The Estevan Mine operates four active pits and supplies lignite coal to the Boundary Dam Generating Station (4 Units), the Shand Generating Station



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(1 Units), the Activated Carbon Plant, the Char Plant, as well as some Domestic Sales. The Generating Stations are owned and operated by SaskPower.

The Activated Carbon Plant is a joint venture between Westmoreland and Cabot Norit Canada. The Char Plant is owned by Westmoreland and supplies char for barbecue briquettes. The Estevan Mine has been supplying coal to the area since 1905 with PMRL acquiring the Bienfait Mines in 1966 and starting the Boundary Dam Mine in 1973.

Coal is uncovered using the six draglines. The exposed coal is hauled from the pits directly to the generating station. Current annual production of the mine is 6 million tonnes. The current coal supply contracts to the Generating Stations for the Mines expire in 2024.

The Estevan Mine has a long history of mining in Canada with the mine and original char plant being established near Bienfait. The Estevan Mine operates the largest fleet of draglines in our Canadian operations."

2:45pm Depart for Wil-Tech Industries

3:00pm **Tour of Wil-Tech Industries (1 hour)**

Wil-Tech Industries:

"For 25 years, Wil-Tech Industries has delivered the highest value to their customers through developing long-term relationships and serving as a trusted fluid power partners across a vast array of industries.

Wil-Tech is a full-service hydraulics installation and repair centre, and a Parker Hannifan's Global Distribution Network Partner offering a comprehensive hydraulics catalogue with instant access to an array of product lines. Wil-Tech provides comprehensive solutions to complex, technical challenges in the fields of fluid power and engineered systems for a broad range of markets, industries, and environments".



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- 4:00pm Depart Estevan
- 5:00pm Tour WhiteCap Resources Weyburn Unit, presentation by Twila Walkeden, General Manager of Weyburn Chamber of Commerce (15 min.)

WhiteCap Resources Inc. Weyburn Unit

"WhiteCap Resources Inc. is an oil-weighted growth company that pays a monthly cash dividend to its shareholders. They are focused on providing sustainable dividends and profitable per share growth enhanced by value added acquisitions."

The primary reservoirs being developed are the Midale and Frobisher. The key characteristics of this asset are medium sour oil, a 62.1% operated working interest in the Weyburn Unit. The Weyburn Unit has been in existence since the 1950s when it was discovered. Waterflood operations commenced in the 1960's with a world class CO2 enhanced oil recovery development commencing in 2000. There remain significant expansion opportunities to expand the Weyburn CO2 flood, and further mitigate an already very low base decline rate."

- 5:15pm Pit Stop – McDonald's Weyburn
- 5:30pm Depart Weyburn
- 6:30pm Arrive Regina (Southland Mall)

Transportation: Moose Mountain Bus Lines 40-Passenger Motor Coach TBC

pick up snacks