SaskPower is leading the way to make coal power environmentally sustainable. Boundary Dam is the world’s first post-combustion carbon capture and storage (CCS) facility attached to a coal-powered plant. The project at Boundary Dam Power Station in Estevan, Saskatchewan, is a partnership between the Government of Canada and SaskPower. The world will be watching and we will show them that coal power with CCS is proven, economical and environmentally responsible.

THE PROCESS

Carbon capture and storage

How it works: the carbon dioxide (CO₂) is absorbed and stored.

At Boundary Dam Power Station, the carbon capture process works with a 90% efficiency. This means that 90% of CO₂ is captured for every tonne of coal burned, as opposed to 5% in coal-fired plants.

THE BENEFITS

The large-scale project at Boundary Dam is the result of more than a decade of research and hard work. It takes an aging power unit and turns it into a reliable, long-term producer of 110 megawatts (MW) of electricity — enough to power 110,000 homes per year.

- Captures 1,000,000 tonnes of carbon dioxide yearly, the equivalent of taking 250,000 cars off the road
- Shows the use of affordable coal power that’s environmentally friendly
- Takes advantage of Saskatchewan’s 300-year reserves of reliable coal supply
- Partners with industry to sell by-products of the capture process, making CCS electricity affordable

CO₂ from the project can either be sold, or it can be stored underground in a safe, permanent rock formation using SaskPower’s nearby Carbon Storage and Research Centre. Decades of research worldwide has shown that the carbon dioxide can be safely and permanently stored in underground rock formations, like the one 3.4 kms below Saskatchewan.

WHY CCS?

Coal is abundant and affordable in Saskatchewan. Government regulations on coal-fired power plants and the need to reduce greenhouse gas emissions around the world mean that if we want to keep using coal to produce affordable, reliable power, we need to do it in a way that reduces our impact on the environment.

The Boundary Dam project and research done at the nearby SaskPower Carbon Capture Test Facility will add to the research being conducted elsewhere in Canada, the United States, Europe, Australia, China, and Japan and make Canada a global leader in carbon capture and storage.

MEDIA ENQUIRIES:

For more information, visit the Carbon Capture and Storage section of SaskPower.com

Or contact:

Tyler Hopson
SaskPower
thopson@saskpower.com
Phone: 306-566-3167
Cell: 306-536-2886