Keephills And Sundance
Power Plants

Sundance Power Plant
Of the six generating units at Sundance, units 4 (406 MW, net) and 6 (401 MW, net) remain in operation today, fired by coal. Earlier this year:

- Unit 1 retired on January 1, 2018
- Unit 2 temporarily shut down (or mothballed) on January 1, 2018
- Unit 3 temporarily mothballed on April 1, 2018 for up to two years
- Unit 5 temporarily mothballed on April 1, 2018 for up to one year
- Unit 4 is scheduled to be temporarily shut down on April 1, 2019 for up to two years

Keephills Power Plant
Three generating units at Keephills are in operation today:

- Keephills 1 and 2 (790 MW net) are owned and operated by TransAlta.
- Keephills 3 (463 MW net) is owned equally by TransAlta and Capital Power and TransAlta is responsible for operations.
- Commissioned in 2011, Keephills 3 is Canada’s largest and cleanest coal-fired facility with an advanced air quality control system.
TransAlta intends to convert up to seven coal-fired units (Keephills 1 – 3 and Sundance 3 – 6).

- Currently, Keephills and Sundance use both coal and natural gas to produce electricity.
  - Generating units produce heat by burning coal or natural gas in a steam boiler to drive the turbine and generator to produce electricity.
  - Natural gas is used today to start the units and can generate up to approximately 30 per cent of the generation at each facility.
  - The amount of electricity each unit can produce is expected to remain the same.

What Will Change with the Conversions

- To allow natural gas to replace coal as the main fuel source, existing equipment will be modified, such as the boilers, fans and control systems.
- New equipment will be added including, natural-gas burners, igniters, scanners, piping and valves.
- The coal-handling equipment will be retired, cleaned and stored in place unless space is needed for new equipment.
- Most conversion work will occur within the existing facilities, with secondary construction activities at each site to install the pipelines to supply natural gas.
What To Expect During Construction

- Each unit conversion similar in scale to a maintenance turnaround, lasting about two months.

- Conversions to coincide with planned turnarounds.

- Most of the conversion work will happen within the existing power facilities, with secondary construction activities at each site installing pipelines and natural-gas pressure letdown stations.

- There will be additional traffic during construction.

- Buses to the plants will be provided for construction workers to minimize traffic.

Sundance and Keephills Aerial Maps After the Conversion

Keephills

Sundance