

## COAL GENERATION

There is currently 5,723 MW of coal-fired capacity within Alberta, and coal has historically been the province's core fuel type for baseload generation of power. Based on federal regulations, no new coal-fired facilities are expected to develop. Further, no energy from coal-fired generation is expected beyond Dec. 31, 2029. More details on policy impacting coal-fired generation can be found in Section 3.2.1 of the 2019 LTO.

Table 3 contains the assumed retirement dates for the coal and coal-to-gas units in the 2019 LTO. The coal-to-gas commencement dates are based on publicly available information found within AUC applications or through corporate announcements. These dates reflect a potential conversion date, not the date when the unit could increase its natural gas usage. Given progress made on natural gas infrastructure upgrades, some could operate on natural gas as dual-fuel units before the conversion date.

Retirement dates are based on federal regulations. For units converting to natural gas, this includes a life extension of up to five years for subcritical coal units and up to eight years for supercritical coal units. The retirement schedule assumes that the market will pace retirements so that they do not occur together, and that at most, two units retire in any given year. The actual retirement and coal-to-gas commencement dates will depend on individual asset owner decisions.

**TABLE 3: Coal Retirement Date Assumptions**

Asset**	Year of Commissioning	End of Useful Life under Federal Coal Regulations	2019 LTO Coal to Gas Commencement	2019 LTO Coal to Gas Retirements
Battle River #3 (BR3)	1969	Dec. 31, 2019*	—	—
H.R. Milner (HRM)	1972	Dec. 31, 2019*	—	—
Battle River #4 (BR4)	1975	Dec. 31, 2025*	—	—
Sundance #3 (SD3)	1976	Dec. 31, 2026	Apr. 1, 2022	Dec. 31, 2030
Sundance #4 (SD4)	1977	Dec. 31, 2027	Apr. 1, 2021	Dec. 31, 2031
Sundance #5 (SD5)	1978	Dec. 31, 2028	Apr. 1, 2022	Dec. 31, 2030
Sundance #6 (SD6)	1980	Dec. 31, 2029	Apr. 1, 2021	Dec. 31, 2031
Battle River #5 (BR5)	1981	Dec. 31, 2029	Apr. 1, 2021	Dec. 31, 2029
Keephills #1 (KH1)	1983	Dec. 31, 2029	Apr. 1, 2023	Dec. 31, 2032
Keephills #2 (KH2)	1984	Dec. 31, 2029	Apr. 1, 2023	Dec. 31, 2032
Sheerness #1 (SH1)	1986	Dec. 31, 2029	Apr. 1, 2023	Dec. 31, 2033
Genesee #2 (GN2)	1989	Dec. 31, 2029	Apr. 1, 2028	Dec. 31, 2034
Sheerness #2 (SH2)	1990	Dec. 31, 2029	Apr. 1, 2023	Dec. 31, 2033
Genesee #1 (GN1)	1994	Dec. 31, 2029	Apr. 1, 2028	Dec. 31, 2034
Genesee #3 (GN3)	2005	Dec. 31, 2029	Apr. 1, 2029	Dec. 31, 2037
Keephills #3 (KH3)	2011	Dec. 31, 2029	Apr. 1, 2024	Dec. 31, 2037

\*These units are assumed to retire at their federally mandated end of useful life.

\*\*Some units can currently run as dual fuel to a reduced level of capacity.

## WIND AND SOLAR RENEWABLE RESOURCES

The AESO retained AWS Truepower, LCC (AWST) to assess wind and solar resources within Alberta. The assessment examined wind speed and solar resource intensity, expected capacity factors, correlations between production profiles and the levelized cost of energy for the province of Alberta. This report is available on the AESO website.<sup>6</sup>

<sup>6</sup> <https://www.aeso.ca/download/listedfiles/AWS-TruePower-AESO-Wind-and-Solar-Assessment.pdf>