

Coal in Alberta

Coal mining has existed in Alberta since the late 1800s as a result of the expansion of railroads to Western Canada. Later, coal would become the primary source of electricity in Alberta. Today, the main interest in Alberta's coal is for export markets, including metallurgical coal.

Coal formations can be found underneath almost half of Alberta. Alberta averages 25 to 30 million tonnes of coal production each year.

Coal types

Three types of coal are mined in Alberta.

Subbituminous coal

This type is found across the plains region of Alberta. Subbituminous coal is mainly used to generate electricity in Alberta and demand is expected to decrease as the province completes its transition away from coal-fired electricity. Alberta is on track to be fully transitioned from coal-powered electricity by the end of 2023, six years ahead of the federal target of 2030.

Thermal bituminous coal

Thermal bituminous coal, from the Foothills region, is primarily exported after processing and is used to fuel electricity generators in distant markets, such as Asia. The higher energy content and corresponding monetary value of Alberta's thermal bituminous coal make it possible to economically transport the coal over long distances.

Metallurgical bituminous coal

Metallurgical bituminous coal, from the Mountain region, is exported after processing and is used for steel production.

COAL PRODUCTION

Coal type	2016-17	Market
Metallurgical bituminous coal	2.8 million tonnes	Export
Thermal bituminous coal	6.1 million tonnes	Export
Subbituminous coal	18.9 million tonnes	Domestic
Total production	27.8 million tonnes	

A Coal Development Policy for Alberta

[A Coal Development Policy for Alberta](#) came into effect in 1976. Alberta implemented the Coal Policy to manage the development of coal resources in a way that maximized the benefit to the resource owner – Albertans – while maintaining strict environmental protections.

The policy was rescinded, effective June 1, 2020, in an attempt to align coal management, including tenure, with other commodities. In response to concerns raised by Albertans, government reinstated the policy in full on February 8, 2021.

As part of the reinstatement, direction was provided to the Alberta Energy Regulator to ensure that:

- No mountain-top removal will be permitted and all of the restrictions under the 1976 coal categories are to apply, including all restrictions on surface mining in Category 2 lands.
- All future coal exploration approvals on Category 2 lands will be prohibited pending widespread consultations on a new coal policy.

Coal categories

The scope of the Coal Policy is wide-ranging and includes, among other items, a land classification system. The policy divides the province into four categories that outline where and how coal leasing, exploration and development could take place.

- Category 1: National Parks, present or proposed Provincial Parks, Wilderness Areas, Designated Recreation Areas, Wildlife Sanctuaries, etc.
- Category 2: Parts of the Rocky Mountains and Foothills
- Category 3: Northern Forested Region and eastern portions of the Eastern Slopes
- Category 4: Areas of the province not covered in other 3 categories

A map of the coal categories, as well as exploration projects, advanced projects, and active mines is available on page 3.

Coal development process

The development of coal resources in Alberta follows a regulatory process that begins before a mine is built and continues after mining is complete. Leases are obtained through Alberta Energy and coal exploration, mining, and reclamation activities are regulated by the Alberta Energy Regulator (AER).

All projects must comply with the following rules, regulations, and requirements:

- [Coal Conservation Act](#)
- [Environmental Protection and Enhancement Act](#)
- [Public Lands Act](#)
- [Water Act](#)
- [Mines and Minerals Act](#)

Stage 1: Obtaining a lease

A company or individual – the proponent – must obtain a lease to a parcel of land, which grants exclusive right to Crown mineral resources. Obtaining a coal lease does not permit exploration or development activities without additional regulatory approval.

Coal leases paused

As of February 8, 2021, all new coal leases have been paused in Category 2 lands. In addition, coal leases sold through the December 2020 auction are in the process of being cancelled.

All active coal leases are posted on Alberta Energy's [online interactive map](#).

Stage 2: Exploration approval

Coal exploration, which is regulated by the AER, refers to the assessment of the location, distribution, and/or quality of coal deposits through activities such as prospecting, surface mapping, or drilling. Later stage exploration includes engineering, as well as project economics to determine if an area is mineable and if a mine is feasible.

Exploration cannot occur until authorized by the AER. Approval is required for coal exploration on both public and private land.

There are currently six projects in the exploration stage. Most coal exploration projects are within Category 2. A complete list of exploration projects is available on page 4.

Stage 3: Development permits

Coal development refers to the work that supports a formal mine application. This includes environmental studies in support of an environmental impact assessment and detailed mapping, drilling and engineering. If the mine application is

approved, development work transitions to mine construction and then commercial mining operations.

Coal development is authorized and regulated by the AER. If, after exploration, a proponent wishes to move a project forward towards mine development, a number of different approvals are required. Proposed coal mines may also need to meet federal environmental assessment requirements.

There are currently three projects that are advancing through the approval process. These projects are in Category 4. A complete list of these advanced projects is available on page 4.

Stage 4: Development and operations

If a mine is approved, an *Environmental Protection and Enhancement Act* (EPEA) authorization is issued. The authorization sets out requirements for operation, including conditions for environmental monitoring, air and wastewater quality, and notifications and reporting to the regulator.

These requirements cover the entire lifespan of the project, including decommissioning. The operator's EPEA application must also include a reclamation plan that details how lands will be remediated and reclaimed when mining is complete and the project concludes.

Once operational, the AER provides ongoing regulatory oversight of a mine and conducts regular inspections to ensure the operator is following all requirements of its EPEA approval. If an operator fails to meet AER requirements, the AER has a number of [compliance and enforcement tools](#) to bring the mine operator back into compliance.

There are currently eight active coal mines in Alberta, including four subbituminous coal mines that are likely to close in the coming years due to the phase out of coal-fired electricity.

All active coal mines are in Category 4. A complete list of these active projects is available on page 4.

Quick facts

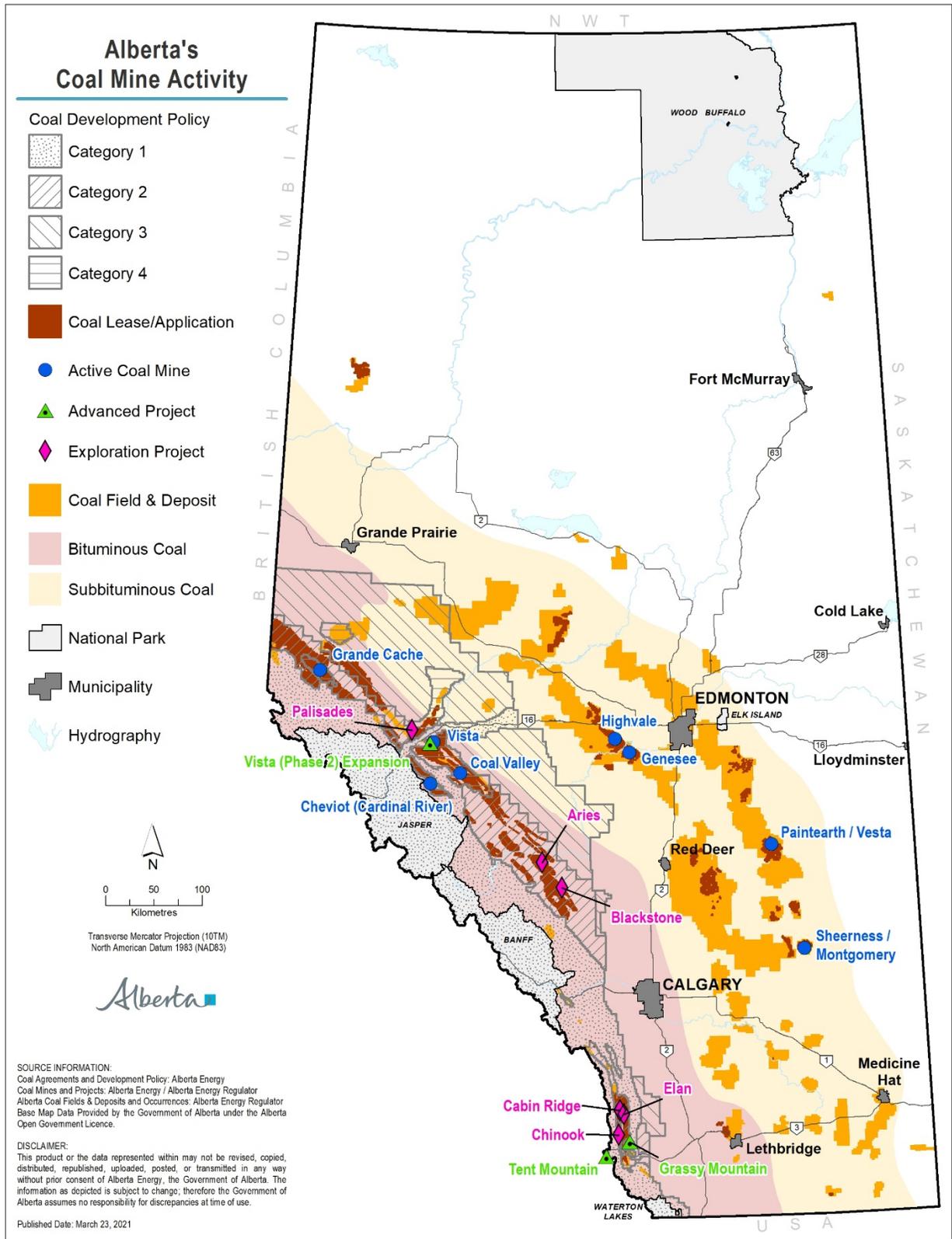
Jobs

In 2019, there were approximately 1,520 people employed in coal mining in Alberta. This number does not reflect the indirect jobs that result from the industry.

Royalties

Royalties vary annually depending on the coal price. In the last five years, royalties have ranged between \$8 million and \$23 million per year.

Map of coal categories



Exploration projects

Project	Location	Information
Aries	Nordegg (Category 2)	Bituminous metallurgical coal exploration project No current exploration activities
Blackstone	Nordegg (Category 2)	Bituminous metallurgical coal exploration project Approved January 2020
Cabin Ridge	50 km north of Coleman (Category 2)	Bituminous metallurgical coal exploration project Approved October 2020
Chinook	Coleman (Category 4)	Bituminous metallurgical coal exploration project Approved June 2020
Elan South	North of Blairmore (Category 2)	Bituminous metallurgical coal exploration project Approved May 2019
Isolation South	North of Blairmore (Category 2)	Bituminous metallurgical coal exploration project Approved July 2019

Advanced projects

Project	Location	Information
Grassy Mountain	Blairmore (Category 4)	Proposed bituminous metallurgical coal mine Under review by Joint Review Panel.
Tent Mountain	Crowsnest Pass (Category 4)	Proposed bituminous metallurgical coal mine Proponent preparing EIA
Vista (Phase 2) Expansion	Hinton (Category 4)	Proposed bituminous thermal coal mine expansion A joint review panel review will be required

Active mines

Mine	Location	Coal type/use/information
Cheviot (Cardinal River)	Hinton	Bituminous metallurgical coal Export Mining ceased in 2020 Began operations in 1968
Coal Valley	Hinton	Bituminous thermal coal Export Began operations in 1973
Grande Cache	Grande Cache	Bituminous metallurgical coal Export Began operations in 1970s
Genesee	Warburg	Subbituminous thermal coal Domestic electricity Began operations in 1980
Highvale	Wabamun	Subbituminous thermal coal Domestic electricity Began operations in 1969
Paintearth/Vesta	Forestburg	Subbituminous thermal coal Domestic electricity Began operations in 1978/1922
Sheerness/ Montgomery	Hanna	Subbituminous thermal coal Domestic electricity Began operations in 1979/1914
Vista	Hinton	Bituminous thermal coal Export Began operations in 2019