

Special

BRITISH COLUMBIA COAL

Coal industry essential to British Columbia’s economy – and its people

British Columbia’s coal industry generated \$3.2 billion in provincial GDP in 2011 and contributed \$715 million in tax revenue. But many British Columbians are only just beginning to appreciate the significant economic contribution the industry makes to the province and its people, says Ann Marie Hann, president of the Coal Association of Canada.

“Coal is essential to British Columbia as a catalyst for economic development, international trade, investment in B.C. communities and the employment of thousands of British Columbians,” says Ms. Hann. “With 12 billion tonnes of potentially mineable resources, coal can help ensure that B.C.’s economy remains strong for years to come.”

The value of the coal industry to B.C. was underlined earlier this year with the publication of a study by PricewaterhouseCoopers (PwC) that was commissioned by the association. It found that coal comprised 22 per cent of the province’s total exports in 2011. While Japan and South Korea were the biggest markets for B.C.’s metallurgical coal, rising demand in China points to a steady growth of the export market in the years ahead.

Janice Plumstead, who authored the report as director of economics and statistics at PwC, says the coal industry also makes an important contribution to provincial employment. It supported more than 26,000 jobs in 2011, she notes, and the estimated annual wage of people directly employed by coal companies was \$95,174, twice the average provincial wage of \$43,500 a year.

“The majority of coal produced in B.C. is metallurgical coal, used for steelmaking, which is essen-



Ann Marie Hann, president of the Coal Association of Canada, stresses coal’s importance to B.C. SUPPLIED

tial material for modern living,” says Ms. Plumstead, pointing out that of the 10 coal mines in the province, nine produce metallurgical coal and one produces thermal coal.

She adds that Canada is the third largest exporter of metallurgical coal in the world after Australia and the United States. Approximately 89 per cent of Canadian metallurgical coal exports are produced in British Columbia.

Ms. Hann says while the PwC report confirms the industry’s position about the positive impact of coal on the B.C. economy, she is surprised by how little British Columbians seem to know about how they benefit from coal.

“Public awareness is now part of our three-year strategic plan to help Canadians understand the value of the coal industry to the economy as a whole – and to B.C. in particular,” she says. “It’s important for people to have access to accurate information, so that they can see for themselves how the industry operates, and how it benefits them.”

Ms. Hann adds that the association has joined other industry partners to form the Coal Alliance, in order to provide a counter-balance to misinforma-

tion shaping public discussions on two coal terminal expansion projects at Port Metro Vancouver.

“The aim of the alliance is to facilitate an informed discussion about the importance of coal to the B.C. economy, and the critical role that terminals play in getting our coal resources to export markets,” she explains.

The role of B.C.’s coal export terminals was highlighted in the PwC report.

Coal shipments were up by 10 per cent in 2011 compared with 2010, amounting to 24.5 million tonnes, while higher coal prices pushed export revenues up by an impressive 35 per cent, notes Ms. Plumstead.

Those numbers are expected to keep rising as new mines come on stream in the years ahead. For example, Fortune Minerals, a London, Ont., firm, is developing the Arctos Anthracite Project in northern B.C. in an 80/20 partnership with a subsidiary of POSCO, the giant Korean steelmaker.

Fortune president and CEO Robin Goad says Arctos is one of the world’s premier metallurgical coal projects and the most advanced Canadian deposit of anthracite, the highest quality coal and a key ingredient in steel

B.C. COAL

\$3.2 billion
The coal mining industry’s contribution in value-added GDP to the provincial economy

\$715.2 million
Total tax payments by the coal mining industry to all levels of government

12.9 billion
Tonnes of potentially mineable coal resources in B.C.

10
Operating coal mines in B.C.

40 per cent
B.C.’s share of national coal production

3
Canada’s world rank as an exporter of metallurgical coal

21.8 per cent
Coal’s share of B.C.’s total export activity

26,000
Jobs in B.C. attributable to the coal industry

\$95,174
Estimated average annual wage for workers directly employed by coal companies

Source: PwC – Economic Impact Analysis of the Coal Industry in British Columbia in 2011

and metal processing. Based on current Product Reserves of 69 million tonnes, the mine is expected to be in production for 25 years. However, given the significant historical resources, Arctos has the potential for multi-generational production.

“Global demand for anthracite is increasing due to new steel-making technologies, traditional uses like sinter and electric-arc steel manufacturing that require low volatile carbon sources, and the need for lower emissions in the process,” says Mr. Goad.

“Emerging economies such as China, India and Brazil are driving forces for metallurgical coal, and we will be meeting that demand. Additionally, traditional suppliers of this product, like China, are now net importers, and Vietnam is reducing exports due to domestic requirements. This is creating an opportunity to develop the world-class Arctos deposit,” he adds.

Another new coal mine in development is Cardero Resource Corp.’s Carbon Creek metallurgical coal deposit in northeast B.C.

“The property has a current measured and indicated resource estimate of 468 million tonnes including an initial reserve of 121 million tonnes, making it the largest single resource in the Peace River coal region,” says Henk Van Alphen, president and CEO of Cardero Resource.

“The recently published pre-feasibility study indicates the potential for this project to have the largest production and lowest cost profile in the region with initial startup in early 2015,” adds Mr. Van Alphen. “From an economic perspective, the project will create 800 to 900 sustainable new jobs to operate the mine and 300 to 400 new jobs during the construction, with a greater number of indirect jobs to the local community of Hudson’s Hope. It will also contribute royalties to the province on the four million tonnes annual metallurgical coal production, as well as federal and provincial taxes on profits of hundreds of millions of dollars per year at full production.”

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For full details with respect to the Prefeasibility Study for Carbon Creek, including the assumptions underlying the PFS and details on the applicable qualified persons, see the November 6, 2012 Norwest Corporation report “Prefeasibility Study of the Carbon Creek Property, British Columbia, Canada”, available on SEDAR.

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BRITISH COLUMBIA COAL



Westshore Terminals at Robert’s Bank on the B.C. coast south of Vancouver handles most of the coal exports from the province. SUPPLIED



EXPORTS

B.C. ports bring coal to global markets and benefits at home

With terminals in British Columbia handling the export of the 27 million tonnes of coal produced there each year, and another 20 million tonnes from mines in Alberta and the United States, transportation and logistics in B.C.’s coal industry bring major economic benefits to the province.

According to a report by PricewaterhouseCoopers (PwC) commissioned by the Coal Association of Canada, coal makes up 11 per cent of all railway traffic in Canada, with 92 per cent of it destined for B.C. export terminals.

Alan Fryer, a spokesperson for the Coal Alliance, which brings together representatives from across the coal industry, including mines, marine terminals, railways, industry associations, organized labour and others who support the mining and shipping of coal in B.C., says that coal plays a major role in port activity. Indeed, it represents about 25 per cent of the value of everything that’s shipped through Port Metro Vancouver.

“Coal has been shipped safely and responsibly for more than

40 years – by rail from the mines to the terminals, and from those terminals onto deep-sea vessels for export to global markets,” says Mr. Fryer.

He points out that just as Canada was built on natural resources and the railroad, the country’s commodities and the supply chain that brings them to market today remain vitally important.

“Thanks to the development of

Metro Vancouver as a world-class port city and gateway for trade, we are able to safely ship those commodities to the rest of the world, creating more jobs and even more economic activity here at home,” he says.

CN transports approximately 15 million tonnes of coal annually to B.C. terminals from mines in B.C. and Alberta, says Andy Gonta, CN’s vice-president of bulk

products.

“In broad terms, the transportation of coal represents about seven per cent of CN’s total revenue,” says Mr. Gonta. “As for British Columbia, coal traffic represents approximately 17 per cent of CN carloads that terminate in the province.”

Westshore Terminals, located just south of Vancouver at Robert’s Bank, in the municipality of

Delta, handles most coal exports from B.C. In 2011, it handled 27 million tonnes of coal, of which 70 per cent was produced in Canada and the rest in the U.S., says general manager Denis Horgan.

“That equates to more than \$4 billion in export revenues for Canada,” he notes, adding that coal brings much more than that. Westshore’s direct economic contribution locally includes 300 high-paying jobs, more than \$3 million to Delta for property taxes and utilities, \$3 million to \$4 million worth of contracts for local suppliers, and some \$160,000 a year in support for local charities and community organizations.

Mr. Fryer says the export of coal from B.C. also needs to be seen in an even broader context.

“Most of the coal that’s mined in British Columbia is used to make steel, and demand for steel continues to be strong worldwide, in the developed countries of Europe and Asia, and in developing countries, which are growing their economies and lifting more and more people out of poverty,” he says.

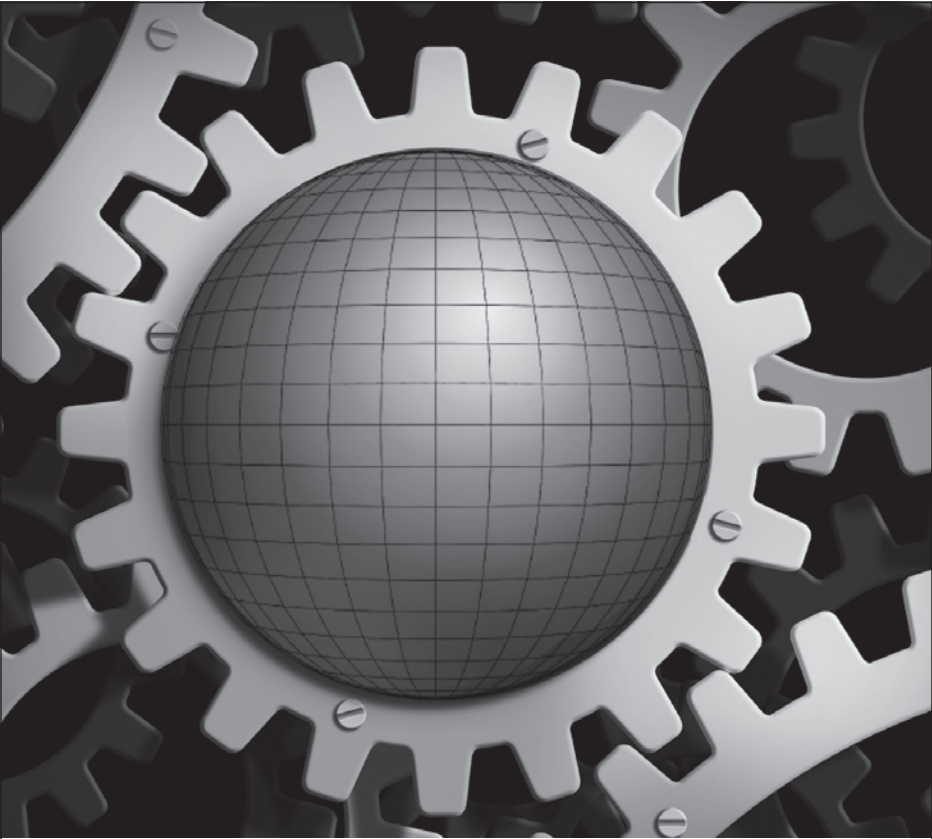
DUST CONTROL A TOP PRIORITY FOR COAL TERMINALS

Even though the coal that travels through Metro Vancouver is no more harmful than many other particles that may create dust in an urban environment such as road dust, playgrounds or beaches, the Lower Mainland’s coal terminals and rail carriers in B.C. have extensive monitoring and investigation programs to address residents’ concerns about coal dust, says the Coal Alliance.

The terminals also adhere to stringent regulatory permits and requirements set by authorities, including federal, provincial, regional and municipal governments and Port Metro Vancouver. For example, all waste water is collected and treated before release, and terminals are required to have comprehensive safety, health and environment, and quality management systems in place, all of which are audited by third parties to ensure their effectiveness.

Railcars carrying coal are sprayed at the mine site with a coating to create a crust on top of the coal to prevent dust. Once empty, each rail car is washed prior to leaving the terminal.

Community concerns are acted on and independent samples are obtained from the community, analyzed and reported back to the community. An air sampling program ensures ongoing compliance at specified points on terminal sites, which are detailed in Metro Vancouver air permits. Sampling and testing is conducted using independent expert contractors.



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BRITISH COLUMBIA COAL

POLICY

Responsible development ensures that coal production balances economic, environmental and social goals

With 10 of British Columbia's 22 operating mines producing coal, it's not surprising that the provincial government is strongly focused on creating a positive climate for the economic, environmental and socially responsible development of the coal industry. B.C.'s Ministry of Energy, Mines and Natural Gas says the province ensures strong, responsible and safe mineral and coal exploration and mine development. Yet it is also a leader in environmental protection, successfully balancing resource development with habitat protection and sustainability, through

to reclamation and mine closure. "Mining is one of the safest heavy industries in B.C., thanks to a comprehensive regime of workplace health and safety policies," the ministry notes. Richard Schryer, director of regulatory and environmental affairs at Fortune Minerals, a London, Ont., company that is developing a new anthracite mine in northern B.C., says the province's environmental standards for mines dovetail with Fortune's view of responsible development. "Arctos is currently in the Environmental Assessment process. An essential part of this

process, along with community and Aboriginal engagement, is the development of a strong closure plan. As mining is a temporary land use, minimizing the impact to the environment while in production and rehabilitation of the area at closure are not only best practices, but are at the heart of environmental rules and regulations. Returning the land to a state similar to that of the surrounding area is the foundation of a legacy we can be proud of," says Dr. Schryer. Walter Energy, a company that operates three surface metallurgical coal mines in northeast British Columbia, sees

environmental stewardship as a fundamental priority, says Anthony Meyers, vice president of Canadian operations. "We work closely with partners, including local First Nations, to minimize the environmental impacts of our operations and continually review our methods to ensure we are using best practices," says Mr. Meyers. The specific challenges the company focuses on include sediment and erosion control; selenium, nitrate and sulphate management; dust suppression; and post mine land reclamation, he adds. As the largest producer of

home safe and healthy every day" and to minimize its impact on the environment. Earlier this year, Teck was recognized as one of the Global 100 Most Sustainable Corporations for 2013 by media and investment research company Corporate Knights. Teck was the top ranked Canadian company on the Global 100 list. In his reaction to the recognition, Teck president and CEO Don Lindsay said the company's employees live and work in the communities where they operate, and they care deeply about doing the right thing for future generations. "This ranking recognizes the progress we've made, but we know there is more work to be done. Teck remains committed to responsible resource development and to considering people, communities and the environment, now and in the future, in every decision we make," added Mr. Lindsay.

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Workers examine a coal seam and trial cargo pit at the Arctos Anthracite Project in northern British Columbia. SUPPLIED


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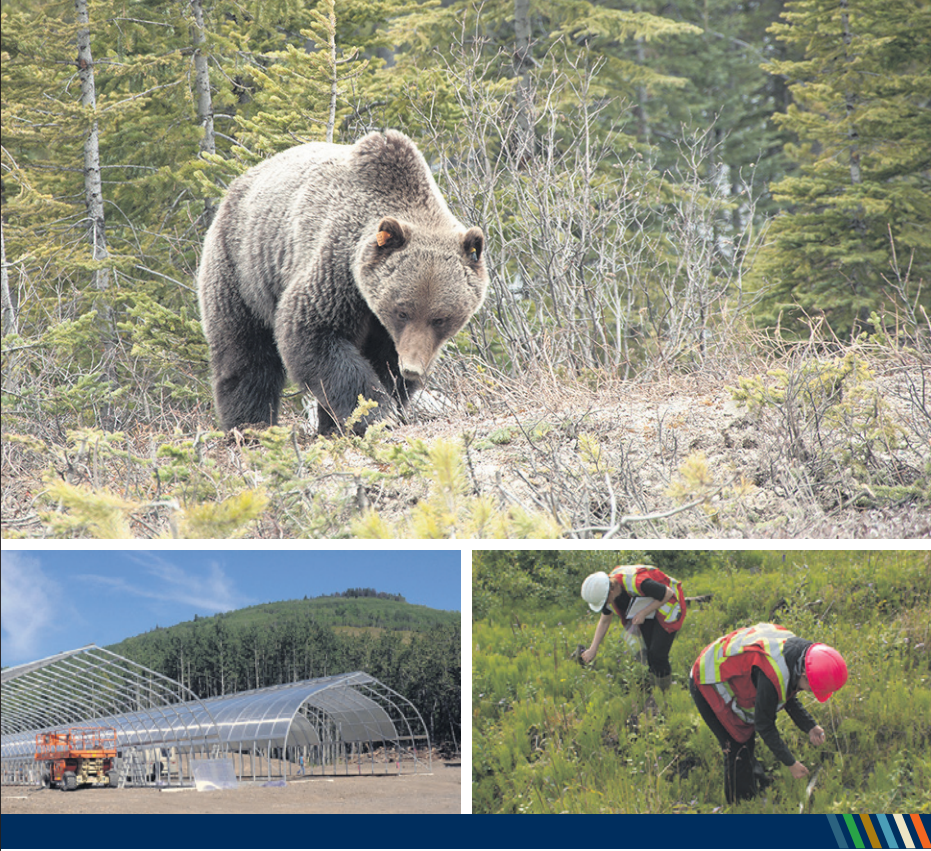


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Walter Energy is a proud partner of the Twin Sisters Native Plant Nursery.

Together with the Saulteau and West Moberly First Nations, Walter Energy has helped to develop the Twin Sisters Native Plant Nursery. The first of its kind in Northeast BC, the 14,000 sq. ft. nursery will supply native plants for Walter Energy land reclamation projects, providing a natural source of food and shelter for wildlife in the area. It will also be a source of jobs and socio-economic benefits for the community.



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