

# TECK COMINCO AND FORDING

## BC'S NATURAL ENERGY RESOURCE TEAM

Canadian Miner

Portrait Photography by Tom Burley

Two of Canada's biggest mine operators, Teck Cominco and Fording Inc, have joined forces to study the feasibility of using some of the millions of tons of waste coal they produce annually to help alleviate a looming provincial power shortage. Teck Cominco's general manager of coal operations, Russ Hallbauer, says both companies have been considering independently the idea of building a coal-fired power plant in the Elk Valley, located in southeastern BC, for more than a decade. Now, with the provincial Liberal Government poised to announce a new energy policy sometime in the next few months, they have decided to pool their resources and ideas to conduct a pre-feasibility study of the project.

**N**ew policies regarding plant emissions and licensing requirements will govern much of the study's goals and content, according to Hallbauer. He says the plant capacity could range from 150 megawatts to 900 megawatts and cost anywhere from \$300 million to \$1 billion. Even if the proposal goes ahead smoothly, he does not see any possibility of it generating its first watt much before 2007.

One thing is virtually for certain, the Teck Cominco/Fording proposal is just the first of a coming flood of similar submissions for private generating plants to supplement British Columbia's future electricity supply. There is also little doubt both the government and BC Hydro will have to consider these proposals very seriously.

Hallbauer says that more than a decade ago BC's Social Credit government warned of a coming shortage of energy in the province. He says the situation has deteriorated since to the point that the province has become a net importer of energy to the tune of some 250,000 megawatts of electricity annually.

With the province unwilling to stretch its already tight budget further by building more infrastructure and even greater public reluctance to approve more dams on British Columbia's river systems, most power experts say the private sector will have to take up the slack.

The Liberal government agrees and its anticipated new energy policy will lay the ground rules for private involvement.

Further hydroelectric development is unlikely in British Columbia. Nuclear power generation is even less likely due to the environmental and security risks associated with securing and disposing of spent fuel. Alternative sources like wind, tide, geothermal, and solar generation are rapidly evolving but will make a minimal contribution to the supply problem in the short term. In the short term the viable fuel options for power plants are oil, natural gas and coal.

Hallbauer believes the first two have other, far more valuable uses. In light of the huge reserves available, building coal-fired generating plants is the most sensible solution to keeping pace with the province's ever-growing energy demands.

Elsewhere in the province there have been proposals for small plants burning wood waste but with increasing saw mill efficiency and demand for particle board products its unlikely that wood waste burning is an option.

Of crucial importance to any future coal-fired plant, Elk Valley included, will be the standards set to limit carbon dioxide, nitrous oxide, NO<sub>2</sub>, and sulfur dioxide, SO<sub>2</sub>. Hallbauer says both Teck Cominco and Fording are recommending compliance with Alberta standards, which are much stricter with respect to SO<sub>2</sub> emissions, NO<sub>2</sub> emissions and particulate emissions.

Hallbauer readily admits the public perception of coal-fired plants is negative. However public opinion is skewed by poor general knowledge of the technical advances that have been made in the last twenty years.

"Certainly if you look at coal-fired power plants



over the last 20 years, the emissions from them have decreased dramatically and the emissions modern plants put out are very, very low."

If enough money is spent, it's possible to reduce emissions from a coal-fired plant to near zero.

Using the latest technology to achieve the goal is not always economical.

"The previous NDP government used to talk about best available technology. Well, we've seen that the best available technology may not be the technology that you can afford at the time because it's always an ever-changing window," explains Hallbauer.

Any plant built at Elk Valley would use what Hallbauer calls reject coal, which is slightly lower quality than what it sells to steel makers, its prime clients. As Mr. Hallbauer explains, "It has a lot of carbon associated with it. Normal coal will run at 10,000 to 12,000 BTUs per pound, while this stuff is probably going to run at 7,000 BTUs per pound. But it still has very low sulfur, probably 0.4% to 0.5%, which is a major concern when your dealing

with emissions. The lower the sulfur, the easier it is to clean it up."

He points out that the United States mines nearly 1 billion tons of coal a year, over 90% of it used to produce power.

"Coal is the largest source of carbon energy in North America and we shouldn't be using natural gas, which is in limited supply, to produce power. We should be using coal as our base load power generator."

**Teck Cominco produces about 3 million tons of this reject coal a year and currently just piles it up.**

Hallbauer says at the moment, the company has about 30 million tons in stockpiles enough to run a 300 to 400 megawatt plant for 30 years and estimates Fording has about the same.

He says it's likely even the largest plant the companies could build in Elk Valley would hardly make a dent in the coal waste supply for many years. He also emphasizes the proposal would

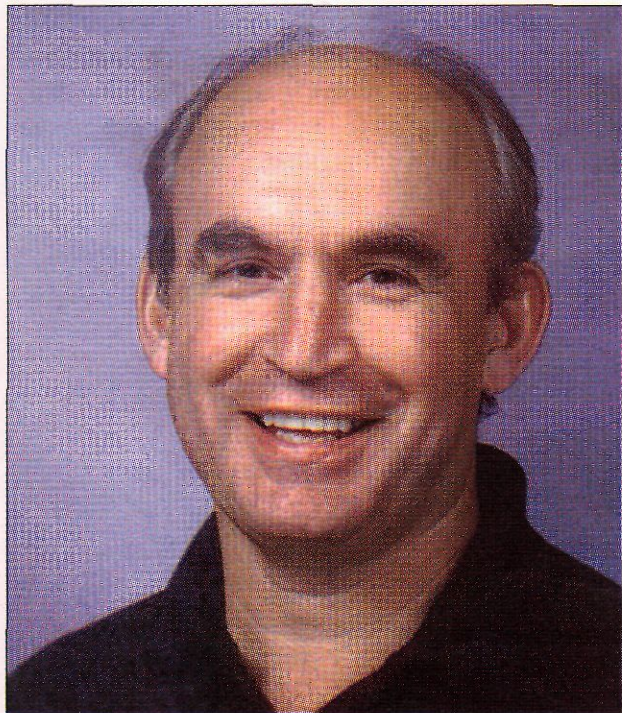
Teck Cominco concludes on page 87

FORGING

## ELECTRIFYING SYNERGIES

## ENERGIZING WITH TECK COMINCO &amp; FORDING

Feature by Bill Bennett M.L.A., East Kootenay



Bill Bennett M.L.A., East Kootenay

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e in the East Kootenay probably know better than most British Columbians what coal means to the provincial economy and what further potential coal has to help grow BC's economy.

To the East Kootenay, coal means five mines employing about 2,500 people at an average salary of \$80,000.00 per year, paying millions in taxes to three Elk Valley municipalities, and supporting all manner of charitable endeavors in those communities. It also means one of the continent's highest concentrations of rocky mountain elk, bighorn sheep, and deer on the fertile reclaimed mining lands.

I recall after the election in May of 2001, arriving at the legislature in Victoria, full of enthusiasm to represent my constituents from Elkford, Sparwood, Fernie and Cranbrook and was surprised to learn that the coal industry was largely unknown to most of my colleagues. Determined to educate them, I have given several speeches in the House and in Caucus. I also gave BC Liberal MLA a lump of coal for Christmas, wrapped with a bow. It's fair to say they now know more about coal than they probably ever wanted to.

Of course, the Premier and veteran MLA's like Dan Jarvis and Richard Neufeld know the BC coal industry well. In opposition, they did their best to recognize and build upon the annual \$2 billion contribution that coal makes to the BC economy. Energy and Mines Minister, Richard Neufeld, has made several improvements to provincial legislation that will lead to more mining investment and employment.

One example, the elimination of provincial sales tax on mining production machinery and equipment, has already increased mining investment.

I became aware of the potential to use coal for generating electricity a few years ago while reading some predictions about projected energy shortages in North America. It is easy, especially in British Columbia, to take our energy supply for granted.

However, our present status as a net importer of electricity has led to the formulation of a provincial energy policy that addresses the needs of an expanding economy.

In determining the role coal should play in BC's energy supply, a fair question to ask is, "Should BC sterilize its most abundant source of energy?" B.C. has some of Canada's largest accessible coal reserves, but produces no electricity from coal.

Alberta, on the other hand, generates approximately 80% of its electricity from coal and is planning more coal-fired power plants to match increasing demand.



Province of  
British Columbia  
Legislative Assembly

Bill Bennett, M.L.A.  
East Kootenay

Legislative Office:  
East Annex, Parliament Buildings  
Victoria, B.C. V8V 1X4  
Phone: 250 387-6599  
Fax: 250 387-9064  
e-mail: bill.bennett.mla@leg.bc.ca

Constituency Office:  
100C Cranbrook Street North  
Cranbrook, B.C. V1C 3P9  
Phone: 250 417-6022  
Fax: 250 417-6026  
Toll-free: 1 866 417-6022

To the Readers of the Canadian Miner

I am writing to say how excited we in the East Kootenay region of SE British Columbia are about the recent decision of Teck Cominco and Fording Inc. to jointly determine the feasibility of building a coal-fired power plant here. As MLA for the East Kootenay, Cranbrook, Fernie, Sparwood, Elkford and all points between, I know I speak for most people in this region. The coal industry has been a beacon of hope for this region, employing almost 2500 people at five coal mines, at an average salary of nearly \$80,000.00. More of these family-sustaining jobs will help keep our children here in the region and build our local economy.

I support the development of coal-fired power plants in the East Kootenay that meet high environmental air emissions standards, especially given the extra environmental benefit of using low sulphur East Kootenay waste coal. Air emissions technologies have improved dramatically. Coal can be a safe, clean, inexpensive source of energy. BC is now a net importer of electricity. In the East Kootenay we import electricity from Alberta that is generated with coal. Over 95% of BC's total hydrocarbon reserves are in coal. Other Canadian provinces and US states generate much of their electricity with coal. With all these facts, I do not believe that we can justify sterilizing BC's most abundant source of energy. **Congrats to Teck Cominco and Fording. Let's get on with it.**

Bill Bennett, M.L.A.  
East Kootenay

Ontario generates considerable amounts of electricity with coal, as do several US states. Much of the electricity that courses through the power grids in Alberta and the Pacific Northwest is generated with coal. When we buy electricity from Alberta for use at our five coal mines in the East Kootenay it is probably generated with coal.

British Columbia has not yet developed coal-generation power plants mainly because of the uncertainty around whether coal can be burned to generate power, while meeting air emissions standards that are acceptable to the people of British Columbia. I believe that coal is a clean, affordable source of energy for us and for our children. The industry in North America has made huge strides in emission levels over the past 20 years and improvements will continue. The development of even better air emission standards is, however, dependent upon the industry being allowed to expand, to profit and to reinvest some of those profits into research and development.

British Columbians are not calling for more river valleys to be dammed and flooded. Nor are they asking that we construct nuclear power facilities.

Green Energy, wind, solar and tidal are potential sources, but they are expensive and unproven.

Current estimates indicate that BC's reserves of oil and gas are relatively minor, compared to coal. Surely it is wise public policy to make the highest and best use of our own oil and gas, and to use our vast coal reserves for generating electricity in environmentally responsible ways. Based on BP Energy's World Review of world reserves and consumption, North America is using far more oil and gas than it can possibly obtain from North American suppliers, even with the development of new reserves.

Climate change is a growing concern to most Canadians and most believe that action must be taken to address the issue. The Kyoto Accord is of course an important consideration in all of this. The BC government is working with the federal government and other provinces to develop an action plan to address the Kyoto protocol. Despite a promise to provide the provinces with details around the full costs of Kyoto, the federal government has not produced this information.

Consequently, Premier Campbell has sent a letter to the Prime Minister with nine questions asking for more details on the impacts of ratifying Kyoto.

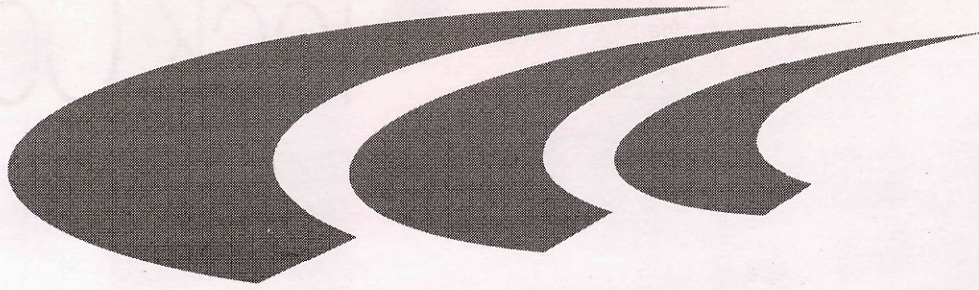
The federal government must be clear on how ratification would impact the economic well being of all Canadians.

It does not make sense for Canada to go it alone on the Kyoto protocol. Any actions or programs undertaken in Canada should be compatible and coordinated in North America. BC has taken the responsible position that a coordinated North American response to the climate change challenge is needed.

The relatively small 150-megawatt plant that Fording has been planning would cost \$250 million to construct, would employ 160 during construction and up to 60 full time employees to operate the plant.

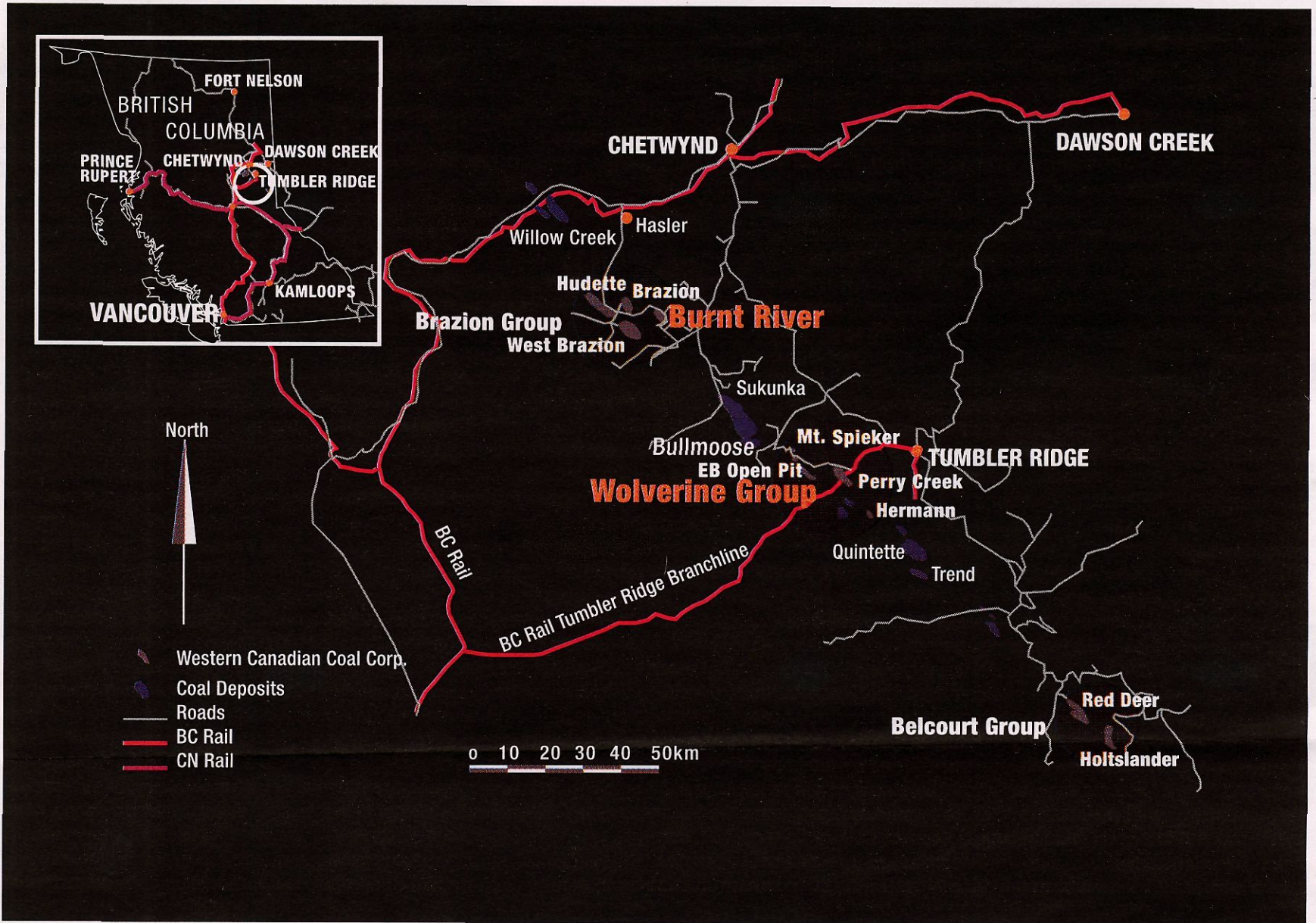
However, Fording Inc and Teck Cominco recently agreed to a joint venture on determining the pre-feasibility of an even larger coal-fired power project in the East Kootenay. The proposal has the added environmental value of being based on the use of waste coal. This project will add value to our coal resource and rural lifestyle. **Other such projects around British Columbia would achieve the same benefits.**





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Mar. '03

# Western Canadian Coal



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Western Canadian Coal Corp. has an attractive portfolio of coal properties favourably located in the Peace River coalfield close to existing infrastructure. Coal tonnage under consideration totals in excess of 250 million tonnes. Western is now advancing its Wolverine project towards production with a goal of achieving 3 million tonnes-per-year of metallurgical coal from this multi-deposit property located only 20 km west of Tumbler Ridge and straddling the BC Rail line.

Western Canadian Coal Corp.  
900 – 580 Hornby Street  
Vancouver, B.C. V6C 3B6

Tel: 604-608-2692  
Fax: 604-684-0642

Website: [www.westerncoal.com](http://www.westerncoal.com)

TSX Venture: WTN

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Russ Hallbauer  
General Manager  
Coal Operations  
Teck Cominco Limited