

Ministry of  
Energy, Mines and  
Petroleum Resources

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2009/10  
Annual Service Plan Report

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Ministry of Energy, Mines and Petroleum Resources

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## Message from the Minister and Accountability Statement



During 2009/10 the ministry continued to steer British Columbia's energy, mining and petroleum resource sectors towards another decade of growth and prosperity. Our vision is for these sectors to be thriving, sustainable and environmentally responsible, and we are achieving this vision by managing exploration and the development of resources in an environmentally responsible and economically competitive manner.

British Columbia has seen strength in a number of key economic indicators over the past several months, and we are in a position of strength as the world recovers from the global slowdown. In its Spring 2010 Provincial Outlook, the Conference Board of Canada forecasts B.C. to record 3.8 per cent real GDP growth this year, an increase from the previous forecast and tied for first in Canadian growth.

Development of clean energy is a key economic priority for the ministry and the government. It is central to our vision for a future of electricity self-sufficiency and job creation, and will help ensure that British Columbians continue to enjoy the benefits of clean, reliable and cost-effective power for many years to come.

British Columbia has enormous clean energy potential in hydro, geothermal, bioenergy, wind, ocean, solar and natural gas resources, providing us with a substantial economic and environmental advantage. Our government is ensuring the energy needs of British Columbians are met by implementing policies and actions identified in *The BC Energy Plan: A Vision for Clean Energy Leadership*. The Energy Plan continues to provide British Columbia with a clear direction for responsible energy development with clean energy at the forefront of our actions and commitments, along with aggressive targets for energy efficiency and conservation. We remain ambitious and are working to meet our increased target of acquiring 66 per cent of BC Hydro's incremental resource needs through conservation by 2020.

The Northwest Transmission Line – a \$404-million project that has the potential to generate billions of dollars in capital investment and create thousands of jobs – is moving forward, pending environmental assessment, and will help the northwest region of the province transition away from diesel generation, while stimulating new economic opportunities in hydro electricity and mining development.

A Green Energy Advisory Task Force was named to ensure that B.C. remains a leader in clean and renewable resources. The task force provided recommendations on how British Columbia's clean and renewable energy can build a greener economy that generates well-paying jobs. Their input helped create the foundation for the *Clean Energy Act*, the new future of electricity self-sufficiency and job creation.

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Natural gas and petroleum continue to play a vital role in British Columbia's economy, accounting for nearly 55 per cent of the province's natural resource revenues. Natural gas and petroleum rights sales totalled over \$896 million in fiscal 2009/10, the third highest total in B.C.'s history. These revenues provide significant economic returns, funding vital social programs and infrastructure development in communities throughout the province.

Investors clearly recognize the natural gas and petroleum resource potential in B.C. and the fiscal year-end rights sales are a strong indication that the Province's Oil and Gas Stimulus Package is enhancing B.C.'s competitive business climate by attracting new investments that produce immediate economic benefits for the province.

We remain committed to community consultations and are moving forward with innovative partnerships that create economic opportunities and build a more inclusive and prosperous future for all British Columbians. Working collaboratively with First Nations and the natural gas industry, the Pacific Trails Pipelines project is an example of our ability to work together to bring millions in economic development and significant job opportunities to northern B.C.

With our strong vision and commitment to the BC Energy Plan, we are creating a clean energy economy that will sustain our natural environment and ensure economic prosperity. Together, we are protecting our environment for future generations and building a sustainable energy legacy of which all British Columbians can be proud.

*The Ministry of Energy, Mines and Petroleum Resources 2009/10 Annual Service Plan Report* compares the actual results to the expected results identified in the Ministry's 2009/10 - 2011/12 *Service Plan Update*. I am accountable for those results as reported.

A handwritten signature in black ink, appearing to read 'Bill Bennett', with a long horizontal flourish extending to the right.

Honourable Bill Bennett  
Minister of Energy, Mines and Petroleum Resources

June 24, 2010

## Message from the Minister of State and Accountability Statement



The positive momentum the provincial economy saw at the end of 2009 continues in 2010, thanks in part to our surging mining and minerals sector.

British Columbia has seen strength in a number of key economic indicators over the past several months and we are in a position of strength as the world recovers from the global slowdown. In its Spring 2010 Provincial Outlook, the Conference Board of Canada forecasts B.C. to record 3.8 per cent real GDP growth this year, an increase from the previous forecast and tied for first in Canadian growth.

Mining is helping lead B.C.'s economic recovery.

B.C. minerals are in demand as gold and copper prices are on the rise, our operating mines are profitable, and employment is growing. All over the world, our province is known for the high quality metallurgical coal that our mines produce. Metallurgical coal is B.C.'s number one mineral export, and our province is the world's second largest exporter of seaborne metallurgical coal.

We have two major metal mines under construction in the province. The Copper Mountain mine, an open-pit copper mine near Princeton, has received provincial approval and is on track to be open next year. Meanwhile, construction is underway at the New Afton mine, near Kamloops. The Mount Milligan mine, between Fort St. James and Mackenzie is expected to begin construction in 2010.

The Minister's Council on Mineral Exploration and Mining continues to meet to ensure broad dialogue between all stakeholders.

Mining is a huge provider of jobs with more than 28,000 people employed in mining and mineral sector-related jobs in more than 50 communities. With about 60 per cent of Canada's exploration and mining companies based in the province, we have one of the most competitive tax and regulatory systems in the world. And the introduction of the HST in July 2010 will also benefit the industry. The HST will save the mining industry about \$55 million annually, and industry has identified additional millions in savings for new mine development and construction.

Our growth is not only in B.C.; we are also expanding our interests abroad. With our position on the west coast and the ports in both Vancouver and Prince Rupert, the province is exporting to China and the Asian markets. We've continued to implement our Asia Pacific Initiative and promote our competitive advantages, mineral wealth and attractive geology. Improving our reputation internationally is helping attract investment into new mines such as Copper Mountain, New Afton, Mount Milligan and other projects.

Mineral exploration activity in the province reached \$154 million in 2009, with 30 mine projects in the development stage. The Province supports and encourages exploration by keeping the

entire public geoscience database freely accessible to clients and investors, via the MapPlace and a full range of additional information located on the ministry's website. This includes all data produced by the British Columbia Geological Survey and Geoscience B.C.

Our mining industry is recognized as a world leader in sustainability, and our government works closely with industry to ensure exploration and development are done in an environmentally responsible, socially inclusive and economically viable manner.

The Minister of State for Mining supports the Minister of Environment in discussions of equivalency (one project, one review) of environmental assessment processes between the federal government and the Province. The intended outcome is to eliminate duplication of process for project proponents.

The province is the first jurisdiction in North America to engage in resource revenue sharing with First Nations on new and expanded mine projects. We're committed to working with stakeholders, communities, First Nations and other levels of government to foster sustainable mining for the benefit of all British Columbians. This will be a significant step forward for new mine development in the province and now- more than ever we need to work together to build a strong, sustainable mining industry.

The Northwest Transmission Line will support the development of a number of new mines and take advantage of the vast mineral potential of the province's northwest region. The new 287-kilovolt line will extend 335 kilometres from Terrace to Meziadin Junction and north to Bob Quinn Lake. It will support economic diversification of the area by providing access to the electricity grid for customers and communities and provide a link for clean and renewable electricity generating projects.

The B.C. Mining Plan laid the foundation for establishing mining as one of the safest and most productive resources industries in the province. Safety remains a top priority. Through ongoing safety audits, inspections, training and awards, the Province is committed to being a leader in workplace safety.

Mining is critical to B.C.'s economic future and we're working today to ensure it remains a vital, sustainable industry. As we begin to see signs of an economic recovery, the time is right to renew and reinvigorate the spirit of confidence and pride that has always been part of our identity as British Columbians.

I am the Minister of State for Mining 2009/10 and, under the *Balanced Budget and Ministerial Accountability Act*, I have been responsible for achieving the following results...

- lead the work of the Minister's Council on Mineral Exploration and Mining in the identification of key issues and opportunities facing the mineral exploration and mining industry in British Columbia, and support the implementation of initiatives that contribute to a globally competitive and sustainable sector;
- on new British Columbia mining projects, initiate discussions with First Nations to identify revenue-sharing opportunities;

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- support the ongoing implementation of the Asia-Pacific Initiative with respect to mining in order to:
  - encourage investment in British Columbia exploration and mining projects, and
  - promote business with the British Columbia mining services sector.
- work with the federal Major Projects Management Office to maximize regulatory efficiency on major mining projects in British Columbia.

A handwritten signature in black ink, appearing to read "Randy Hawes", with a large, stylized flourish at the beginning.

Honourable Randy Hawes  
Minister of State for Mining

June 24, 2010

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## Highlights of the Year

In September, 2009, the Terrane Metals' Mount Milligan Copper Mine project, located between Fort St. James and MacKenzie in northern British Columbia, received its *Mines Act* permit. The project had received its Environmental Assessment Certificate earlier in the year. The mine is expected to produce 81 million pounds of copper and 194,000 ounces of gold per year. The Copper Mountain Project near Princeton received its *Mines Act* permit in March of 2010. The Copper Mountain Mine will produce 104 million pounds of copper per year. Both mines will be undergoing construction in 2010 with Copper Mountain slated for production in 2011 and Mount Milligan in production by 2013. These were two of 31 *Mines Act* permits issued for new and amended projects around the province.

In June 2009, a 'virtual' trade mission was organized by the Province where four exploration companies gave presentations by video conference to Chinese investors on British Columbia projects involving coal, copper, molybdenum and gold. On August 5, 2009, a delegation of Chinese state owned companies visited Vancouver. The Government of British Columbia, in co-operation with Saskatchewan, hosted an investment seminar for the delegation which focussed on base and precious metals. In October, 2009, officials from the Ministry led a delegation of British Columbia mining companies on an Asia Investment Mission which included investment seminars in China, Japan, and South Korea and participation in the China Mining Conference. During the mission, British Columbia companies signed one confidentiality agreement and came away with many more investment leads. Following the mission, one Chinese company established a Vancouver office, negotiated one commodities deal and is seeking investment opportunities in the coal sector.

In December 2009, the Ministry successfully concluded a Mountain Caribou Recovery Implementation Plan in collaboration with the Ministry of Environment, the Association for Mineral Exploration British Columbia, the Mountain Caribou Project, and industry representatives. This collaborative process began in July 2008. Permit conditions specific to mineral exploration activities proposed in designated mountain caribou habitat were created to build certainty for the mining and minerals exploration sector and to ensure that activities can proceed that are consistent with the principle of effective management of caribou habitat. This approach contributes to the Ministry's sustainability strategy as set out in the B.C. Mining Plan.

British Columbia was one of three provinces invited by Canada to participate in the Carbon Capture and Sequestration Working Group of the United States-Canada Clean Energy Dialogue held June 29-30, 2009, in Washington D.C. The Ministry represented the Province and demonstrated its proactive approach to the reduction of greenhouse gas emissions through initiatives such as Carbon Capture and Sequestration. Projects that demonstrate how B.C. will meet its greenhouse gas emission reduction targets while allowing for future development of areas such as the Horn River shale gas play are critical to the sector's development.

In March 2010, the Ministry signed an agreement with the Earth Sciences Sector of Natural Resources Canada to collaborate on two geoscience projects in support of hydrocarbon and mineral exploration in northern B.C. The agreement extends until 2012/13 and will see a federal contribution of about \$1.4 million for geoscience work with the Ministry. The first project will focus on the Liard Basin and the shale gas potential of northeast B.C. Knowledge gathered from actively explored areas such as the Horn River Basin, or better exposed areas such as the Northern Foothills, will be used to highlight the geological potential of new shale gas areas. The second project will improve the effectiveness of mineral exploration in the northern Cordillera by outlining resource-rich environments in northwest B.C. and by determining whether geological settings in this area are similar to those for known deposits along strike.

On March 29, 2010 British Columbia held the first disposition of geothermal rights since 2004. The Crown offered one permit covering approximately 8,075 hectares located near Knight Inlet on B.C.'s central coast. The total price received for this permit was almost \$25,000. The permit had a geothermal exploration work requirement of approximately \$40,000 in the first year. The next disposition of geothermal rights is tentatively scheduled for the summer of 2010.

The Ministry's ePayments program, which was developed to facilitate online payments for annual oil and gas tenure rentals, became mandatory on October 1, 2009. A client survey revealed a 97 per cent satisfaction rate with the ePayments program.

Through participation in the first LiveSmart BC: Efficiency Incentive Program, tens of thousands of British Columbians have shown how important home energy efficiency is to them. In the last year, the LiveSmart BC: Efficiency Incentive Program has achieved the following results:

- completed 17,690 efficiency retrofits this year, totalling 25,000 to date in the program and over 83 per cent of the total program target of 30,000;
- reached the program's three-year 40,000 entry target for pre-retrofit energy assessments in only 15 months. As incentive eligibility closed on August 16, 2009, the LiveSmart Program continued to subsidize the cost of the pre-retrofit assessments throughout the province, assisting another 17,000 British Columbians to perform assessments and become eligible for federal grants through March 31, 2010;
- reduced 46,000 tonnes of greenhouse gas emissions from existing homes participants, for an average of over 2.5 tonnes per year per participant and totalling more than 65,000 tonnes in savings to date.

Budget 2010 renewed the LiveSmart BC: Efficiency Incentive Program, with \$35million in funding. During 2009, the Ministry established and co-chaired the Electricity Climate Action Working Group, comprised of electricity sector stakeholders, provided support for the work of the Green Energy Advisory Task Force, and provided significant policy input into the Cabinet Committee on Climate Action and Clean Energy to support its development of recommendations to maximize British Columbia's economic potential as a clean energy powerhouse.

## **Purpose of Ministry**

The Ministry of Energy, Mines and Petroleum Resources manages the responsible development of British Columbia's energy, mining and petroleum resource sectors. Through the promotion of teamwork and positive working relationships with our clients, we facilitate a climate for thriving, safe, environmentally responsible and competitive energy, mining and petroleum resource sectors. It is through these initiatives that the Ministry will continue to contribute to the economic growth and development of communities throughout British Columbia.

British Columbians can expect to see continued benefits from resource development opportunities. This Annual Service Plan Report outlines the Ministry's strategies from 2009/10 to increase the jobs, investment and revenue related to these sectors, while ensuring the highest degree of environmentally responsible resource development occurs on the land base from which energy, mineral and petroleum resources are derived.

In pursuit of its mandate, the Ministry is responsible for a wide range of policies and programs related to mineral exploration and mining, including permitting, mine inspections and safety, geoscience, skills training and educational programs. The Ministry develops and implements British Columbia's policies with regard to electrical power generation and transmission, including oversight of BC Hydro, BC Transmission Corporation and Columbia Power Corporation. It is responsible for initiatives to promote new energy technologies, energy conservation and alternative energy sources, such as bio-energy and renewables, including wind and solar power generation. Regulatory policy for the petroleum and natural gas industry, another important part of the Ministry's mandate, ensures the orderly and timely extraction of British Columbia's petroleum and natural gas resources. Examples of the Ministry's petroleum and natural gas related services include participation in job fairs, trade shows and service sector promotion, the provision of geoscience information and the development of royalty policy.

The Ministry also manages the rights to Crown subsurface resources. Monthly petroleum and natural gas rights auctions are held and coal, underground gas storage and geothermal applications, mineral claims and mining leases are processed. The Ministry continues to develop and implement progressive public policies and programs for new conventional and unconventional oil and gas resources, as well as develop strategies and policies in the areas of land use, marketing, and Aboriginal and community relations. In developing its policies, legislation and guidelines, the Ministry consults with its clients in the petroleum and natural gas, mining, electricity and alternative energy industries, as well as communities, First Nations, and environmental and industry associations.

The Ministry administers 28 statutes pertaining to the energy, mining and petroleum resource sectors. In addition, the Minister of Energy, Mines and Petroleum Resources is responsible for the Assayers Certification Board of Examiners, the British Columbia Hydro and Power Authority, the BC Transmission Corporation, the Columbia Power Corporation, the Mediation and Arbitration Board and the Oil and Gas Commission.

The Ministry is responsible for providing policy direction to the Oil and Gas Commission, which regulates the oil and gas industry in British Columbia. The Oil and Gas Commission is a single window regulatory agency with responsibilities for overseeing oil and gas operations including exploration, development, pipeline transportation and reclamation.

BC Hydro's mandate is to generate, purchase, distribute and sell electricity. BC Hydro maintains sufficient energy supply and the capability to ensure safe and reliable electricity delivery to customers when it is needed, while balancing environmental and social considerations.

Under the *Transmission Corporation Act*, the BC Transmission Corporation is responsible for planning, operating and managing the Province's high voltage electric transmission system. Both BC Hydro and BC Transmission Corporation are Government owned Crown corporations, regulated by the B.C. Utilities Commission. Pursuant to the 2010 BC *Clean Energy Act*, on July 5, 2010, BC Hydro and the BC Transmission Corporation consolidated into one utility to provide a single point of planning and authority to deliver the government's clean energy vision.

Columbia Power Corporation is a Crown corporation wholly owned and controlled by the Province, existing under the *Business Corporations Act*. Columbia Power Corporation develops and operates power projects in the Columbia Basin on a joint venture basis with the Columbia Basin Trust. Columbia Power Corporation oversees the operations of the Brilliant power plant and Brilliant Expansion, and Arrow Lakes Generating Station and is pursuing the development of the Waneta Expansion Project.

The Ministry conducts its business in a manner consistent with Government's core values as identified in the Province of British Columbia's Strategic Plan.

#### ***RENEWABLE AND LOW CARBON FUEL REGULATION ENACTED***

*The Province continued its leadership in reducing the environmental impact of transportation fuels through the enactment of the Renewable and Low Carbon Fuel Requirements Regulation on December 21, 2009.*

*The new Renewable and Low Carbon Fuel Requirements regulation amends a 2008 regulation to include new requirements to reduce the carbon intensity of transportation fuels by 10 per cent by the year 2020.*

*The low-carbon fuel requirement is a market-based approach to achieving emission reductions. This requirement uses life-cycle analysis to determine the overall carbon intensity of fuels used for transportation and includes all factors associated with the production and consumption of each fuel. This regulation will create additional choices for consumers to reduce their reliance on non-renewable fuels, and will help diversify B.C.'s transportation fuel supply and decrease greenhouse gas emissions by establishing a sustainable market for low-carbon and renewable fuels.*

## Strategic Context

Preliminary estimates from Statistics Canada show that British Columbia's real GDP contracted by 2.3 per cent in 2009, following a year of 0.0 per cent growth (or no change) in 2008. The slowdown in B.C. during 2009 reflects the sharp U.S. and global economic downturn, the moderation of domestic demand in B.C., and volatility in world financial and commodity markets. The Ministry of Finance forecasts B.C.'s economy to return to growth in 2010, with real GDP increasing by 2.2 per cent. Risks to B.C.'s 2010 economic outlook include a double dip recession originating in the U.S., slower than anticipated global demand resulting in reduced demand for B.C.'s exports, further appreciation of the Canadian dollar, and further weakening of the U.S. dollar resulting in significant disruptions to global financial and commodity markets.

The world economic downturn in 2008 led to sharply lower metal and coal prices in early 2009. Unprecedented financial measures were implemented by the U.S., Europe, China and other nations to increase liquidity and encourage economic growth. As a result, later in 2009, economic growth resumed in China and, to a lesser extent, in some other emerging countries. Mineral prices subsequently recovered and the mineral price index had regained 60 per cent of its 2008 decline by March 2010. The Province's minerals economy remained reasonably buoyant as a result.

2009 was also a challenging year for natural gas development in North America. Natural gas prices were affected by both lower demand due to the recession, and excess supply due to the emergence of shale gas resources in the U.S. and, more recently, in Canada. The focus of the Ministry changed as it sought to develop measures to stimulate exploration and development of the abundant natural gas in northeast B.C.

The year was characterized by low electricity market prices due to reduced economic activity. This caused lower than expected government revenues from the sale of electricity. Sales volume and prices were higher than 2008/09 during the height of the financial crisis. Demand grew during 2009/10 and is projected to grow further in 2010/11 as the economic recovery continues. However, the Ministry expects prices for electricity to stabilize at lower levels than prior to the economic downturn due to reduced forward natural gas prices. The Mid-Columbia Electricity Market price is correlated to the market price for natural gas because it is the incremental fuel source of choice for new electric generation in the Western Interconnection, of which British Columbia is a part. Other Western Interconnection jurisdictions continued to develop policies to encourage the development of clean, renewable electricity sources in response to environmental and climate policy. The Ministry expects this policy shift to continue into the 2010/11 fiscal year and beyond, subject to developments in the western United States. Demand for clean, renewable electricity will drive the need for new transmission development in the Western Interconnection region to bring large quantities of remote, intermittent generation to large load centres. This will require coordinated efforts from all Western Interconnection jurisdictions, including British Columbia.

## Ministry of Energy, Mines and Petroleum Resources

Demand from communities, First Nations and stakeholders for earlier and more comprehensive information about energy and mining proposals continued through 2009. Many First Nations and communities continued to actively look at the opportunities open to them to engage in proactive energy planning, ranging from energy conservation programs to resource and other economic developments.

The public and stakeholders are making increased use of the internet for doing business and obtaining information. The Ministry's clients have changing information needs and expectations that require alternative methods of service delivery. Steady growth in the oil and gas industry in northeast British Columbia resulted in greater pressure on rural residential areas for well drilling access. Landowners and rural residents expressed a desire to be informed when the Ministry offers the oil and gas rights under their property for competitive bidding to industry.



*Electricity generating wind turbines at Bear Mountain near Dawson Creek, B.C.*

# Report on Performance

The performance measures in the Ministry's 2009/10 Service Plan Update published in September 2009 were the same as those in the Ministry's 2009/10 Service Plan released in February 2009. These performance measures were carried forward from the Ministry's 2008/09 Service Plan in an effort to preserve the year on year stability of performance tracking and reporting. The Ministry's structure was stable during 2009/10, as the Ministry did not gain or lose any units.

## Performance Plan Summary Table

<b>Goal 1 Thriving and competitive energy, mineral and petroleum resource sectors.</b> For greater detail see pages 15 to 18	<b>2009/10 Target</b>	<b>2009/10 Actual</b>
Annual Investment in Oil and Gas Exploration and Development	\$5.0 Billion	\$6 Billion EXCEEDED
Annual Investment in Electricity Facilities	\$2.8 Billion	\$3.55 Billion EXCEEDED
Annual Investment in Mineral Exploration and Mines	\$0.70 Billion	\$0.70 Billion ACHIEVED
<b>Goal 2: Safe and environmentally responsible energy, mineral and petroleum resource development and use.</b> For greater detail see pages 19 to 22	<b>2009/10 Target</b>	<b>2009/10 Actual</b>
<b>2.1 Operational practices at work sites that protect the public, workers' safety and the environment</b>		
Short term injury rate at B.C. Mines	2.0 claims per 100 person years	1.8 ACHIEVED
<b>2.2 Increased energy conservation and use of alternative, clean energy and efficient technologies.</b>		
Incremental electricity savings achieved each year through utility and provincial conservation policies, programs and regulations	859 GWh	933 GWh EXCEEDED
<b>Goal 3: The Ministry, communities, First Nations and industry working cooperatively for the responsible development and use of B.C.'s energy, mineral and petroleum resources.</b> For greater detail see pages 22 to 24	<b>2009/10 Target</b>	<b>2009/10 Actual</b>
<b>3.2 Increased opportunity for First Nations to share in the benefits of responsible resource development and use.</b>		
Number new or renegotiated working arrangements with First Nations related to energy, mineral and petroleum resource development	75	75 ACHIEVED

## Goals, Objectives, Strategies and Performance Results

### Goal 1: Thriving and competitive energy, mineral and petroleum resource sectors

#### Objective 1.1: Increased investment, revenue generation and job creation in energy, mineral and petroleum resource development for the long-term benefit of all British Columbians

#### Strategies

Key strategies for this objective include:

- Attract investment by continuing to work with industry to develop and implement focused marketing and investment programs to showcase British Columbia as a centre of excellence for energy, mining, and oil and gas development.
- Further establish British Columbia as a recognized centre for innovation and technology research, education and demonstration, in collaboration with industry, post-secondary institutions, the federal government and provincial agency partners.
- Improve British Columbia's competitiveness in energy, mineral and petroleum development by providing leadership, information, investing in infrastructure, and developing new policies, regulations and programs to address the current economic environment.
- Continue to support the work of the Minister's Council on Mineral Exploration and Mining to identify key issues and opportunities facing the mineral exploration and mining industry in B.C.

#### **2009/10 YEAR-END NATURAL GAS AND OIL RIGHTS SALES HIT \$896M**

*The disposition of Crown natural gas and oil rights generated \$896.44 million in revenue for fiscal year 2009/10. The Province disposed of 379,077 hectares of rights at an overall average price of \$2,365 per hectare. This total is the third highest amount in B.C. history, and the overall average price is the second best value of all time. For the western provinces, B.C. holds the record for the top three yearly average prices in history (2007/08 – 2009/10). B.C. also has six of the top seven yearly average prices of all time. The October 2009 natural gas and oil rights sale realised over \$370 million in revenue, the sixth best sale ever recorded. The sale averaged \$5,625 per hectare, the second highest in B.C. history. There were two areas of keen competitive interest to industry that caused average prices to reach near record levels. Parcels disposed within the Montney Regional Trend area and the Horn River Basin continued to generate massive tender bonus totals for the third consecutive year. These two areas combined accounted for over \$786 million in revenue, representing 88% of the fiscal year total.*



**Objective 1.2: An increasingly secure, reliable supply of energy for the long-term benefit of all British Columbians**

**Strategies**

Key strategies for this objective include:

- Work with BC Hydro and the BC Transmission Corporation to upgrade the Province's heritage electricity assets and transmission infrastructure.
- Ensure self-sufficiency to meet electricity needs, including extra energy or “reliability insurance”, through innovative, aggressive conservation, competitive power procurement programs, and BC Hydro’s own projects.
- Diversify British Columbia’s fuel supply, including biodiesel and fuels developed from biomass.
- Work with stakeholders and industry to promote the responsible exploration and development of undeveloped onshore basins.

**Objective 1.3: Efficient and effective fiscal, legislative and regulatory frameworks and services that reflect the public interest, and enhanced social and economic benefits for all British Columbians**

**Strategies**

Key strategies for this objective include:

- In cooperation with other levels of government and the B.C. Environmental Assessment Office, continue regulatory review to ensure British Columbia remains competitive, while maintaining the integrity of environmental, health and safety standards.
- Identify the relative global positioning of B.C.’s exploration and mining sector compared with other significant mineral producing jurisdictions worldwide (countries, states, provinces, etc.).
- Develop and implement a faster and simplified approach to multi-agency approval for exploration and mining activities through FrontCounter BC.
- Expand and improve online service delivery by developing and implementing electronic payment and permitting options.
- Manage the oversight of the Columbia River Treaty to ensure the value of downstream benefits continues to be realized.
- Develop and implement new regulations for renewable fuels under the *Greenhouse Gas Reduction (Renewable and Low Carbon Fuel Requirements) Act*.

- Implement a new regulatory framework under the *Oil and Gas Activities Act* for industry, First Nations, government agencies and stakeholders which will strengthen regulatory oversight and protect the environment, health and safety.
- Work with First Nations, communities, industry and other government agencies to understand the effects of resource development and how through collaboration and progressive public policy, approaches can be developed and implemented to balance the interests and needs of local residents and resource developers.

**Objective 1.4: Greater community awareness of the benefits of energy, mineral and petroleum resource opportunities**

**Strategies**

Key strategies for this objective include:

- Develop and implement focused promotional programs to inform British Columbians about opportunities in the energy, mining and petroleum industries.
- Provide information to, and foster engagement with, community stakeholders, industry and other government partners about the benefits of environmentally responsible resource development and opportunities for energy conservation.
- Increase provincial awareness of opportunities by working cooperatively with other ministries and partners to engage school students in a discussion of responsible energy, mineral and petroleum resource development.
- Pursue financial and cooperative renewable energy partnerships with industry, such as those with Independent Power Producers, communities and other levels of government.
- Negotiate revenue sharing agreements with First Nations on new mining projects.
- Continue to implement the Energy Council working group with the First Nations Leadership Council to raise awareness and enhance understanding of energy and climate issues in First Nations communities.

## Performance Results

Performance Measure	2007/08 Actual	2008/09 Actual	2009/10 Target	2009/10 Actual
Annual Investment in Oil and Gas Exploration and Development <sup>1</sup>	\$4.5 Billion	\$8 Billion	\$5.0 Billion	\$6.0 Billion EXCEEDED
Annual Investment in Electricity Facilities <sup>2</sup>	N/A	\$1.631 Billion	\$2.8 Billion	\$3.55 Billion EXCEEDED
Annual Investment in Mineral Exploration and Mines <sup>3</sup>	\$0.816 Billion	\$1.276 Billion	\$0.70 Billion	\$0.70 Billion ACHIEVED

### Data Sources:

<sup>1</sup> Source: Data analysis by Ministry of Energy, Mines and Petroleum Resources based on Canadian Association of Petroleum Producers data for previous years. Estimates provided by calendar year.

<sup>2</sup> Source: Data analysis by Ministry of Energy, Mines and Petroleum Resources and B.C. Public Utilities. Estimates provided by fiscal year.

<sup>3</sup> Source: Data analysis by the Ministry of Energy, Mines and Petroleum Resources based on calendar year survey results from Natural Resources Canada, Statistics Canada and PriceWaterhouseCoopers

## Discussion of Results

Annual investment in oil and gas exploration and development comprises industry investment in geophysical and geological surveys, exploratory and production wells, pipelines and processing plants. Used domestically for heating and cooking purposes, natural gas also has a wide range of commercial and industrial uses. Increased investment is an indicator of increased production which expands the supply of gas to residential, commercial and industrial consumers.

In addition, oil and gas activities provide jobs for British Columbians, build provincial infrastructure, and provide significant revenue to the Province which supports social programs such as education and healthcare. This measure has been used in past years and continues in the 2010/11 Ministry Service Plan. The target was significantly exceeded.

Annual investment in electricity generation and transmission facilities tracks total investment in the electricity sector in British Columbia, including improvement and replacement to existing infrastructure by the major provincial electrical utilities — BC Hydro, BC Transmission Corporation and Fortis BC — and Independent Power Producers which supply electricity to the utilities. Capital expenditures in the energy sector help ensure a safe and reliable electricity system to meet household, commercial and industrial needs. The electricity sector employs many British Columbians, and the dividends from electricity Crown corporations, and tax, water rental and other revenues from all electricity market participants contribute to important social programs. This measure was new for 2008/09, so no historical data are presented for 2007/08 in the performance table. The measure continues in the 2010/11 Ministry Service Plan. The target was exceeded due to higher than anticipated Independent Power Producer investment of about \$100 million and an \$841 million investment by BC Hydro in a one third stake in the Waneta generating facility in the West Kootenays.

Annual investment in mineral exploration and mines combines exploration expenditure and investment in new and existing mines. Annual mineral exploration expenditures provide jobs for British Columbians throughout the province. If commercially viable deposits are discovered, new

mines may be opened, and exploration dollars are converted into operating mines, with more long term employment opportunities created for rural communities. Capital investment in new or existing mines also provides jobs and builds provincial infrastructure. Mineral taxes and tenure fees and rentals provide revenue to the Crown. This measure is the combination of two measures used in the past and continues in the 2010/11 Ministry Service Plan. The target was met.



*Innergex run-of- river hydroelectric dam and powerhouse on Rutherford Creek, B.C.*

## **Goal 2: Safe and environmentally responsible energy, mineral and petroleum resource development and use**

### **Objective 2.1: Operational practices at work sites that protect the public, workers' safety and the environment**

#### **Strategies:**

Key strategies for this objective include:

- In cooperation with industry, enhance collaboration to improve environmental and safety compliance through inspections and audits.
- Explore further opportunities to expand environmentally responsible energy, mineral and petroleum resource development, in partnership with industry, communities, First Nations, environmental groups, universities, colleges and other government organizations.
- Meet with mine managers to ensure mine health and safety standards and practices are applied consistently.
- Hold an annual mine rescue competition in collaboration with the Mining Association of British Columbia to recognize and improve emergency response capability.
- In collaboration with the Ministry of Advanced Education and Labour Market Development support education and training initiatives for the enhancement of a skilled mineral exploration and mining workforce, such as the Canada-B.C. Labour Market Agreement to support the creation of a productive, mobile and inclusive workforce

#### **Performance Results**

<b>Performance Measure</b>	<b>2007/08 Actual</b>	<b>2008/09 Actual</b>	<b>2009/10 Target<sup>1</sup></b>	<b>2009/10 Estimate</b>
Short term injury rate at B.C. Mines	1.5	1.7	2.0 claims per 100 person years	1.8 ACHIEVED

**Data Source:** Ministry of Energy, Mines and Petroleum Resources Staff analysis of WorkSafeBC data for previous years

The forecast and targets are calculated by dividing the number of accident claims (as reported by WorkSafeBC) by 100 person years to result in the rate of short term injury per year. A person year is the amount of time an employee works in one year — using 2,000 hours as the average number of hours. Forecasts and targets are expressed by calendar year and are based on the calculation of a 10 year rolling average. The use of a 10 year rolling average smoothes out statistical anomalies caused by significant single events. The measure captures open pit coal and metal mines, quarries and underground mines. As a result, the measure and targets are an accurate representation of the accident rate for the sector.

## Discussion of Results

The target reflects the anticipated average number of accident claims per year at B.C. mines, including open pit coal mines, open pit metal mines and underground mines, per 100 person years. As new mines open in the province, the mining workforce will be larger and have a greater percentage of workers who are new to mining operations. Enhanced health and safety training and inspections will be required to maintain mining as one of B.C.'s safest heavy industries. The measure continues in the 2010/11 Ministry Service Plan. Based on a weighted average of 1.8 claims per 100 person years calculated by the Ministry, the target was achieved. The actual statistics will be supplied by WorkSafeBC in July 2010.

### ***ANNUAL AWARDS RECOGNIZE EXCELLENCE IN MINE SAFETY***

*The Province celebrated excellence in mine safety at the combined Provincial Mine Rescue, First Aid and Safety Awards ceremony held in June 2010 near Squamish. The 54th Annual Provincial Mine Rescue and First Aid Competition brought together regional mine rescue teams for an all-day event at Britannia Mine at Britannia Beach, B.C. The competition was designed to simulate real-life situations and test skills in first aid, extrication, fire fighting, rope work and general mine rescue knowledge. Trophies were awarded to the best three-person miner first aid team as well as for excellence in surface and underground mine rescue.*



*Wolverine metallurgical coal mine near Tumbler Ridge, B.C.*

**Objective 2.2: Increased energy conservation and use of alternative, clean energy and efficient technologies**

**Strategies:**

Key strategies for this objective include:

- Support energy utilities with the implementation of cost effective demand side management measures.
- Work with the Climate Action Secretariat, other government ministries and agencies, Crown Corporations, communities, electricity producers and utilities across British Columbia to implement a coordinated and focused approach to energy conservation and efficiency measures and support deployment of alternative energy options to meet the province's energy needs.
- Continue to support energy efficiency in homes and buildings through: supporting the 40,000 British Columbians who have entered the LiveSmart BC: Energy Efficiency Program as they complete the retrofits of their homes; providing one-stop access to federal and utility programs; and working with utility partners on a future version of the LiveSmart Program.
- Implement the 2008 Energy Efficient Buildings Strategy: More Action, Less Energy which has among the most aggressive energy efficiency targets in Canada.
- Introduce a new, industrial energy efficiency strategy and program.
- Ensure the procurement of clean and renewable electricity continues to account for at least 90 per cent of total generation.
- Continue to advance the development of a hydrogen economy by promoting the hydrogen fuel cell industry and other technology that supports alternative energy.
- Continue to implement the BC Bioenergy Strategy to take advantage of B.C.'s abundant sources of beetle-killed timber, wood wastes and agricultural residues.
- Improve energy efficiency in homes, buildings and industry by implementing new standards under the *Energy Efficiency Act* to increase the minimum performance levels for manufactured building components and equipment.

**Performance Results**

Performance Measure	2007/08 Actual	2008/09 Actual	2009/10 Target	2009/10 Actual
Incremental electricity savings achieved each year through utility and provincial conservation policies, programs and regulations	N/A	552 GWh	859 GWh	933 GWh EXCEEDED

**Data Sources:** BC Hydro, Ministry of Energy, Mines and Petroleum Resources Survey.

## **Discussion of Results**

This measure is driven by policy actions one through nine of the BC Energy Plan. The target represents electricity savings from BC Hydro's PowerSmart demand side management programs and conservation/stepped rate participants. BC Hydro designs and directs energy efficiency programs to three main market sectors — residential, commercial and industrial. Savings are also achieved through energy performance codes and standards established for buildings and energy using devices. This measure was new for 2008/09, so no historical data are presented for 2007/08 in the performance table. The measure continues in the 2010/11 Ministry Service Plan. The target was significantly exceeded.

## **Goal 3: The Ministry, communities, First Nations and industry working cooperatively for the responsible development and use of British Columbia's energy, mineral and petroleum resources**

**Objective 3.1: A strengthened commitment to environmental and social responsibility through increased, appropriate and timely engagement of communities, First Nations and stakeholders in resource development**

### **Strategies:**

Key strategies for this objective include:

- Foster working relationships between industry, local communities, First Nations and landowners by clarifying and simplifying resource development and management processes, enhancing dispute resolution methods, and offering more support and information.
- Facilitate and support collaboration on energy developments between industry and First Nations, and encourage and assist industry to engage First Nations early in development proposals.
- Examine tenure policies and legislation, and develop regulations to address areas of new opportunity.
- Work with First Nations, industry and communities to manage the development of the Horn River Basin shale gas play in a manner that establishes leading North American standards for unconventional gas resources.



**Objective 3.2: Increased opportunity for First Nations to share in the benefits of responsible resource development and use**

**Strategies:**

Key strategies for this objective include:

- Work with First Nations on opportunities to participate in energy, mining and petroleum development.
- Facilitate and strengthen partnerships between First Nations, industry and government to fund skills, employment and business development opportunities.
- Negotiate revenue sharing agreements with First Nations on new mining projects.
- Facilitate involvement by local First Nations in oil and gas pipelines through the proposed Northern Energy Corridor between Kitimat and Prince George

**Performance Results**

Performance Measure	2007/08 Actual	2008/09 Actual	2009/10 Target	2009/10 Actual
Number of new or renegotiated working arrangements with First Nations related to energy, mineral and petroleum resource development	55	65	75	75 ACHIEVED

**Data Sources:** Ministry of Energy, Mines and Petroleum Resources staff analysis.

**Discussion of Results**

The Ministry’s new or renegotiated working arrangements include a broad range of initiatives. These arrangements can include Ministry/First Nations information sharing working groups, Long Term Oil and Gas Agreements and Mining and Mineral Protocol Agreements.

These arrangements are either newly signed with the Ministry, or are existing arrangements that have been renewed. The benefits to aboriginal communities from these arrangements include information sharing, defined steps for the fulfilment of consultation obligations, support for community capacity, training in Ministry processes and systems related to mineral and oil and gas development, and opportunities to provide input on policy development. The target was met, and the Ministry is pleased with the steady increase in the number of cooperative arrangements with First Nations as reflected in the historical data.

The measure has been revised in the 2010/11 Ministry Service Plan to reflect commitments made by the Province in its New Relationship with First Nations, particularly those elements on benefit and revenue sharing. The revised measure for 2010/11 is “Number of energy, mineral and petroleum resource related development projects where revenue sharing negotiations are active or complete with First Nations”.

The revised measure and targets show the Ministry's commitment to engaging First Nations in negotiations on revenue and benefit sharing arrangements. These negotiations may be done directly by the Ministry with First Nations, as well as in collaboration with other Government agencies – such as the Integrated Land Management Bureau and/or the Ministry of Aboriginal Relations and Reconciliation. Examples of these kinds of negotiations include the negotiation of Economic and Community Development Agreements associated with new mines or major expansions of existing mines.

**Objective 3.3: Enhanced public awareness of resource opportunities and the benefits of their responsible development and use**

**Strategies:**

Key strategies for this objective include:

- Continue to collaborate with other ministries, agencies and Crown corporations to provide information and engage communities and First Nations in exploration and development of resources.
- Continue support for the annual Mining and Sustainability Award (implemented in 2006) to recognize the achievements of communities, industry, organizations and individuals.
- Continue to implement the Northeast Energy and Mines Advisory Committee and a public information strategy on energy and mining in northeast British Columbia, which is the province's major oil and gas producing area, and the location of significant coal mining and mineral resources as well as wind power opportunities

***OIL AND GAS INDUSTRY REACHES OUT TO COMMUNITIES***

*DAWSON CREEK, September 25, 2009 – the Province, in collaboration with the oil and gas industry and local communities, has created a package of programs designed to improve industry and resident relations.*

*Living Together – Working Together is a voluntary community-based initiative that helps address local area concerns related to oil and gas activity such as traffic safety, speed control, dust, noise and roadway maintenance related to oil and gas activity. Several oil and gas companies operating in the Montney Play region of B.C. have made a public commitment to adhere to the Living Together - Working Together guiding principles. These principles include: working collaboratively with landowners, local and Aboriginal communities, government and other industries to identify opportunities and minimize the impacts of oil and gas operations in a safe and responsible manner; being respectful of shared use of the land; commitment to ongoing communication; and accountability.*



*Nexterra Gasification Plant at Hefley Creek near Kamloops, B.C.*

# Report on Resources

Core Business Area	Estimated <sup>1</sup>	Other Authorizations	Total Estimated	Actual	Variance
<b>Operating Expenses (\$000)</b>					
Oil and Gas	10,776	-	10,776	9,828	(948)
Titles	4,676	-	4,676	4,872	196
Mining and Minerals	12,544	-	12,544	11,816	(728)
Electricity and Alternative Energy	28,336	-	28,336	29,024	688
Marketing, Aboriginal and Community Relations	4,857	-	4,857	4,516	(341)
Executive and Support Services	6,604	-	6,604	7,016	412
Contracts and Funding Arrangements	1,875	-	1,875	393	(1,482)
<b>Subtotal – Operating Expenses</b>	<b>69,668</b>	<b>-</b>	<b>69,668</b>	<b>67,435</b>	<b>(2,203)</b>
Adjustments of Prior Years <sup>1</sup>	-	-	-	(20,444)	(20,444)
<b>Total</b>	<b>69,668</b>	<b>-</b>	<b>69,668</b>	<b>47,021</b>	<b>(22,647)</b>
<b>Ministry Capital Expenditures (Consolidated Revenue Fund) (\$000)</b>					
Oil and Gas	21,000	17,193	38,193	38,193	-
Titles	-	-	-	-	-
Mining and Minerals	-	-	-	-	-
Electricity and Alternative Energy	-	-	-	-	-
Marketing, Aboriginal and Community Relations	-	-	-	-	-
Executive and Support Services	387	(285)	102	102	-
<b>Total</b>	<b>21,387</b>	<b>16,908</b>	<b>38,295</b>	<b>38,295</b>	<b>-</b>
<b>Other Financing Transactions (\$000)</b>					
<b>Oil and Gas Commission</b>					
Receipts .....	32,900	4,199	37,099	37,099	-
Disbursements .....	32,900	4,199	37,099	37,099	-
<b>Total Net Cash Source (Requirements)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

<sup>1</sup> "Other Authorizations" include Supplementary Estimates, Statutory Appropriations and Contingencies. The Ministry did not have anything to report for 2009/10.

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**Mineral Claims Inspectors:**

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**Smithers:**

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## Hyperlinks to Additional Information

A list of Legislation administered by the Ministry can be found at:

[www.empr.gov.bc.ca/OG/legislation/Pages/default.aspx](http://www.empr.gov.bc.ca/OG/legislation/Pages/default.aspx)

A list of Crowns, Agencies, Boards and Commissions reporting to the Minister of Energy, Mines and Petroleum Resources can be found at: [www.em.gov.bc.ca/crowns](http://www.em.gov.bc.ca/crowns)

The BC Energy Plan can be found at: [www.energyplan.gov.bc.ca/](http://www.energyplan.gov.bc.ca/)

The BC Mining Plan can be found at:

[www.gov.bc.ca/empr/popt/reports/down/bc\\_mining\\_plan\\_02\\_2007.pdf](http://www.gov.bc.ca/empr/popt/reports/down/bc_mining_plan_02_2007.pdf)